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Line Up for National Honey Week—November 7-12

IT looks now as though the excitement of National Honey Week is spreading from coast to coast. Don't miss your part, however small it may be. Outstanding results we hope to be reported so that all readers may benefit from learning what others were able to do during this important event.

Three National Broadcasts

During National Honey Week there will be three national broadcasts: On Monday, November 7, the story of bees and honey by the "Singing Lady" of the Kellogg Company; on Tuesday, November 8, by the United States Department of Agriculture, and on November 9 by Betty Crocker, General Mills Incorporated. The time of broadcast for Kellogg's "Singing Lady," every day, except Saturday and Sunday, is 5:30 to 5:45 p. m., eastern standard time; 5:30 to 5:45 p. m. central standard time, and 5:30 to 5:45 p. m. Pacific standard time.

The interview between Miss Van Deman and the government honey specialist will be 12:54 to 1:00 p. m. eastern standard time, 11:54 a. m. to 12:00 central standard time, 10:54 a. m. to 11:00 a. m. mountain standard time. This will be heard over the National Farm and Home Hour radio stations.

Betty Crocker, of General Mills, will give a Honey-Bisquick broadcast on November 9 over the National Red and supplementary networks of the National Broadcasting Company and over stations of the Columbia Broadcasting System of the Pacific Coast chain. Her broadcasts are at 10:45 a. m. to 11:00 a. m. eastern daylight saving time; 9:45 to 10:00 a. m. eastern standard time; 9:45 to 10:00 a. m. central daylight saving time; 8:45 to 9:00 a. m. central standard time, and 7:45 to 8:00 a. m. mountain time. Over the Columbia Broadcasting System, Pacific Coast chain, broadcast is from 9:30 to 9:45 a. m. standard time. Since these are

all national hookups, we do not give the long list of stations included.

Institute Material

Remember that American Honey Institute is prepared to send you suggestions for grocers who will co-operate with you in making window displays and store displays during this week. Send to the Pabst Corporation, Milwaukee, Wisconsin, or to the Kellogg Company, Battle Creek, Michigan, for posters which have been prepared for the use of beekeepers for this particular week. American Honey Institute will also send suggestions for the cooperative use of honey at soda fountains, in candy shops, restaurants, and hotels.

There is still time to get a supply of the silver and blue stickers which have been advertised for use during Honey Week. They are inexpensive and attractive. We know because we use many of them on our own mail and in various ways. Get in touch with American Honey Institute, 417 North Few Street, Madison, Wisconsin, and you will get a supply of suggestions. Send for your order of stickers along with it.

The suggestions to grocers, bakers, candy shops, hotels and restaurants mentioned above are good even after National Honey Week. Beekeepers should promote honey every week of the year. That is the way to sell it and make it an all the year around staple. Cooking schools and more cooking schools are being sponsored by newspapers, department stores and chain groups. Bring honey to the attention of the instructors so that they will give ways to use honey in their lessons. How about your home economic teachers, home demonstration agents and visiting nurses? Are you seeing that they get honey recipes outlined for honey demonstrations and honey food values? This material awaits such specialists. All they need to get it is to send a request to American Honey Institute.

A full list of cooperating companies and what they are doing was

given in last month's issue under "Meetings and Events." Dig out that copy and read it to see what wonderful support you are getting and then do your best to make Honey Week a success.

Caucasians vs. Italians

In view of the great interest recently shown in the Caucasian bees, our readers will be glad to know that a new bulletin, entitled "A Comparative Test of the Caucasian with the Italian Race of Honeybees," has recently been issued by the Wyoming Experiment Station at Laramie. The bulletin is written by C. L. Corkins and C. H. Gilbert, of the station staff.

Describing the climate of the region in which the test was made, the authors state: "Long winters, comparatively warm summer days with cool nights, and a late season major honeyflow characterize this entire intermountain territory." Sweet clover is the source of surplus.

The experiment was carried over a five-year period and compared brood rearing and honey storing of the two races. It is stated that the immediate locality is a rather poor one for honey production.

It was found that during the early part of the season the Caucasians reared far more brood than the Italians, but that the Italians reared more brood later in the season. Since it is the brood reared prior to the honeyflow which will be of value in harvesting the crop, the comparison favored the Caucasians.

In honey production the Caucasians averaged better every year, but especially so in the poorer years. This experiment indicates that Caucasians are better adapted to high, cold and windy plains regions, but in a different climate the results might favor the other race. Those wishing copies of the bulletin should write the Wyoming Experiment Station, Laramie, Wyoming.

Do Bees Die By Natural Causes in Winter?

By L. E. Orr
California

A NEW YORK beekeeper has to pack his bees just so, make special cellars and weigh them to make sure he has the proper amount of honey to carry them through the winter. Our Canadian neighbor has his so-called trouble and a lot of extra work to protect his bees. Then out in Illinois they have an idea and a lot of difficulty in protecting their bees. And as we go this far west some of our Colorado beekeepers might know all about it. But up in the northwest corner of our big map, in the State of Washington, they think their system in winter protection has them all skinned.

Now, judging from what we read in most all of our bee journals, they all have some bees that die. Some are poorly packed, lack of stores, poor old queens, or wrong breed of bees, or at least in most cases we are led to believe something is wrong.

A California beekeeper reads all about the other beekeepers' troubles all over the country and wonders what it is all about.

In our San Joaquin Valley we just let our bees stay put as they were when last extracted for the season, make sure the covers will not blow off and stock do not get near to turn over the hives, and forget them for the next four months.

And after all we lose a few just like the rest we read about. Nothing strange about it; there are just as many causes for insects to die as the causes for beekeepers to die, and death records point out that more people die in fall and winter than any other time.

After all the so-called systematic beekeeper has told us to properly pack, give plenty of stores, plenty of bees and requeen in the fall to make sure we will have plenty to go through the winter.

Back in our boyhood days, in order to get a few acres to grow corn and our potato crop, land had to be cleared, trees cut down, logs rolled up in big piles and then burned. It was in winter when many of the big trees were cut, and we often came across many insects, snakes and lizards. These little creatures were snugly tucked away in their frosty bed, and yet nature took care of them. In time they would crawl out when warm spring days came, just the same as they did in the fall before they had crawled into their winter bed.

How true it seems, if nature has taken care of these little creatures, nature will take care of our bees, and do it the same way as if in the wild state. There are good reasons to believe it is a lot of so-called extra

nursing and by our thinking it important that we are keeping them from dying is a lot of "bunk."

When we only try to follow nature's conditions as the bees instruct us in their regular habits, there is a very little left for us to apply for the preventing of winter losses.

The idea of plenty of bees is not a sure factor. We often winter a four-frame nucleus with less than a quart of bees, a very little honey to keep them warm. If plenty of honey was all to it, why do we often lose colonies with lots of honey, many times our best honey getters?

Year after year many questions on the same angle, but they come out little different. Conditions are not the same with bees a mile apart in their location.

We often use our best judgment in placing bees in a location and think they are in the best place, but the amount of honey and the building up of bees will show contrary.

Feeding is often misjudged and a lot of worry and work has been wasted as well as a lot of expense. May and part of June is our bad time of year when bees run low on feed. Here in Kings County we sometimes feed about two weeks. I have never lost a colony of bees so long as they had a few cells of honey, and in many cases of close inspection have had stores so short that part of a comb of honey would be considered a lot. Often for two weeks I have inspected as much as fifty colonies in one apiary and many would have very little over two ounces of honey to feed on.

It is not necessary to get scared until we see them pulling out or begin to eat on their brood. A fact came to my attention several years ago, and perhaps many of our readers will not consider my statement worth a consideration. To let our bees clean up as much of their old honey, and when there is a long period between a heavy honeyflow, hungry bees eating up stores close will solve our foulbrood problems as well as some of our winter losses.

The cleaning up of foulbrood spores could be wisely done by the bees if brood raising was slowed up sometime, just the same as using a dry comb taken out of an American foulbrood hive and using it in a clean colony. The course of encouraging amateur beekeepers to use sugar syrup to feed bees instead of honey is a practice that should be stopped. Three to five parts of water in your honey, boiled for a few minutes, will kill all of the danger and your bees will do well on it.

You are saving money and at the same time spreading the sale of honey. Why advertise sugar or syrup when we are producing a better product? Did it ever occur to any wise advocate of sugar feeding that your bees will put in any kind of fruit juice, grapes, mulberries, and most every kind of berries that grow, when their other nectar sources are shut off. So long as such is the case, they will never starve.

Many of our nationally known men who are working in the Department of Agriculture claim cooked or overheated honey fed to bees acts in an injurious way and should not be fed. Again, when melting up cappings, scraps, and remelting wax, I have put water in this mixture, and if the mixture proved to be rich enough I put it in cans and keep it for feed, and it would be plenty black. My bees never died or got the dysentery.

There are many of just such suggestions we could pass along that will work in the solving of natural losses if we use them in the way to fit nature's laws with the bees.

But there are just as many facts yet to learn of how the bees are guided by nature's laws as there has ever been solved. Mr. Natt N. Dodge quoted in one of his articles.

This problem is one which has not been solved satisfactorily even for experienced bee men, and every season the bee papers carry articles devoted to new and better methods for carrying the colonies safely through the nectarless season.

The Honeyman Speaks

Some days ago the writer listened with interest to the "Honeyman" over Radio Station KMOX of St. Louis. There was no intimation of the identity of the speaker, but it was evident that he was featuring honey in a way to interest his hearers.

Now we learn that the "Honeyman" is O. W. Hickel, of St. Louis, and he has found so much interest in these casual broadcasts that he suggests that the beekeepers of this region raise a fund to finance a regular program of entertainment to go with a special announcement about honey. We quote from Mr. Hickel's letter below and will be very glad to hear from our readers as to whether such a fund can be raised. The following quotations from the letter are of interest:

"On Station KMOX, which is our largest station here, there is a farm hour from 12 to 1 o'clock. Last week this station asked me to give a talk on honey. After this broadcast which I gave, they requested me to appear every week during this month and then every day during Honey Week, and also to broadcast until the month of February. These

weekly talks which I give will also be broadcasted over WOS at Jefferson City during the Farm Hour.

"I have donated, at my own expense, twenty-four one-pound jars of honey as prizes for recipes, and from the broadcast which I made for the first time I received over two hundred letters. You understand I am not using my name, as I desire no personal publicity, but instead am using the title 'The Honeyman.'

"From my experience on the radio so far, next week being the third broadcast, and the fact that I receive no pay and no personal advertising, it occurred to me that I would be the logical one to make a suggestion in regards to starting a fund of about \$260, through your magazine, to have a special broadcasting period of thirteen weeks on honey, for this station covers Missouri, Illinois, Arkansas and a great many others, but this alone would be enough to work it out. If this suggestion is of value, and if you feel that the talks which I am giving, as per the inclosed, are of sufficient interest, I would appreciate you publishing them.

"In other words, I am trying to dramatize recipes each time to make it of interest to those who are listening in."

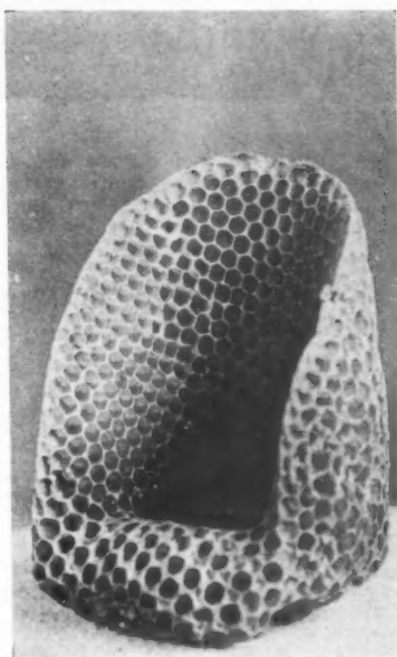
Where Do Package Shipments Go?

Figures have recently been given us by one of the large southern package shippers, covering his 1932 sales of several thousand packages of bees. The provinces of Canada, as was to be expected, lead the field, but closely followed by the sweet clover belt of the northern states. Naturally, the report, coming as it does from one of the central southern states, would show minimum allotment to the western and Pacific Coast states, as well as to the East. These folks save transportation costs by buying nearer home.

However, the figures have some significance. If it were possible to get similar figures from all other shippers some very interesting statistics would result. The figures submitted show the following states ranging in order in amount of packages purchased:

Manitoba	20 %
Ontario	11 "
Minnesota	10 "
Ohio	8 "
North Dakota	7 "
South Dakota	5 "
Illinois	5 "
Nebraska	5 "
Saskatchewan	4 "
Wisconsin	4 "
Michigan	3 "
Iowa	3 "
New York	3 "
Kansas	2 "
Quebec	2 "

An Unusual Comb Construction



The above picture shows combs taken from one of my hives on July 3. Here is a complete chain built in an empty super. I have never seen anything like it. I had a picture made and sent it to you so our readers might see something unusual.

Judson Good, Arkansas.

All other states ranged from 1 per cent down to negligible quantities.

One-third of all shipments were three-pound packages and two-thirds two-pound packages—more than we would have estimated of the three-pound. Perhaps in the future there will be a greater demand for three-pounders where the time is short to the main honeyflow, and it is advisable to have a big package to start the queen laying full force immediately on arrival.

About 7 per cent of all packages went by parcel post.

M. G. Dadant.

A Newly Discovered Brood Disease

By C. E. Burnside
Assistant Apiculturist
Bureau of Entomology, U. S.
Dept. of Agriculture

In March, 1932, the Bee Culture Laboratory of the United States Department of Agriculture, in cooperation with the states of Georgia and Florida, began an intensive study of an undescribed brood disease which has made its appearance in parts of Georgia and Florida, as first reported

in the September, 1931, issue of *Gleanings in Bee Culture*. A temporary laboratory was established at Thomasville, Georgia, and during March, April and May the writer, ably assisted by R. E. Foster and A. B. Hamlin, chief apiary inspectors of Florida and Georgia, respectively, conducted a study of the newly discovered brood disease and the causative organism.

The morphology, cultural characteristics, life history and staining properties of the organism have been studied and a report giving a complete description is being prepared by the writer in cooperation with R. E. Foster. The distribution of the disease has not been determined, but it is known to exist in limited areas in Florida, Georgia, South Carolina and North Carolina. Since the symptoms resemble certain symptoms of each of the other foulbroods and the causative organism resembles bacteria present in European foulbrood, the names suggested for the disease and the causative organism are para-foulbrood and *Bacillus para-alvei*, respectively.

Marketing Bulletin

"Some Facts Concerning the Production and Marketing of Honey" is the title of a new bulletin by M. P. Rasmussen, issued by Cornell University, Ithaca, New York. Copies may be had on request from the College of Agriculture, Ithaca, New York.

Mr. Rasmussen made a very thorough study of the marketing of honey and discusses wholesale outlets, honey packers, bottlers and shippers, commission men, brokers, and a large number of consumer outlets. These include bakery, confectionery, hotels, manufacturing druggists, etc., in addition to the usual outlets through the grocery trade.

He goes into detail concerning the manner in which honey is distributed and volume of trade. Much of the bulletin is given over to a consideration of the attitude of the individual consumer, the amount of honey used, color and flavor preferred, and the form in which it meets with greatest favor. Containers and brands come in for consideration along with the competition which honey meets from other sweets which are commonly used as substitutes.

This is a very fine piece of work which should be studied by every person seriously interested in the marketing of honey. It suffers somewhat from the fact that publication comes so long after the study was made. The work was done in 1926-28, and changing conditions make it somewhat out of date, as so often happens in the case of publications issued by the various government agencies.

EDITORIAL

AMERICAN BEE JOURNAL

Slow Markets

Reports from the country districts indicate a rather slow demand for all farm products, and honey is no exception. Since honey does not have an established market like eggs or cream, it takes some effort on the part of the beekeeper to turn his product into cash or exchange it for other articles which he needs. The beekeeper who is also a good salesman has a great advantage over his neighbor who lacks selling ability.

The beekeeper is fortunate in that his product is not perishable and will not be lost if it fails to find immediate sale. The most disturbing thing about the present situation is the tendency toward lower and lower prices. While it was inevitable that prices must come down, still it hardly seems necessary to sell good honey at the prices prevailing in some localities. It would be better to keep a part of the crop than to sell it below the cost of replacement.

Some Practical Experiments

During recent months our attention has been called to a number of very practical lines of investigation studied by our research workers. Two recent bulletins are reviewed in this issue, one from Cornell University on the subject of marketing and the other from Wyoming dealing with a comparison of Italian and Caucasian bees under Wyoming conditions.

Certainly no such difference in results between the two races could be expected under conditions such as prevail in most of our country, but after all it is important for the beekeeper to find the race of bees best suited to his own location. We have always been champions of the Italians and still believe that under certain climatic conditions they are best, but must admit a very good showing for the grey bees in some localities. We would like to see similar tests made in the Middle West, the East, and also the South.

Such work as that included in the Cornell marketing bulletin is of direct practical value to every man who sells honey. In Colorado, Richmond has worked on the pollination of red clover by honeybees; in Wisconsin, Marvin and Wilson have studied moisture in honey, and numerous other similar observations are under way. The flight range of the honeybee is a subject of immediate practical importance to every beekeeper in locating his apiary, and some interesting results of a study of this subject by Dr. J. E. Eckert of the Government laboratory will soon be available.

We endeavor to review all such studies, as the results become available to the public, when bulletins are published, and suggest that our readers secure and read carefully the publications dealing with subjects in which they are interested.

Watch the Leaks

In times when business is poor and prices low, there is always a tendency to neglect the details of any business. It is in times like these that greatest care should be used to avoid every unnecessary loss. It is when income is small that losses can be least afforded. Instead of permitting the bees to die and the equipment to go to wreck because profits are small, the opposite course should be pursued. Care should be taken to make sure that every colony has sufficient stores for winter, that all equipment is in good condition and unused material placed under cover, safe from the weather. Colonies with poor queens and colonies which are weak should be united with others to save what bees and stores they have, rather than to let them die during the winter. Especial attention should be given to finding every case

of disease and disposing of it promptly. More disease is spread in early spring from weak or dead colonies than at any other time. If a good job of inspection is done in the fall, the source of infection will be removed before harm is done.

Don't Put Any Honey in Second-Hand Cans

We were caught once, years ago, in buying second-hand cans—that is, cans that had held honey before. One would think that a can could be cleaned easily and be as good as new, but it is not so. Nearly always the cans are more or less stained with honey or water, on the inside, besides being much less neat on the outside than new cans. So we find that, even if the cans were given to us for nothing, it would not pay to put up honey in them, if we want our product to look clean and be clean.

Wintering Bees in the Cellar

We used to winter some forty to eighty hives of bees every winter in the cellar. We had a very good cellar for that purpose, for it was very dry and so located that we could give the bees cold air when the winter days were too hot. It was the warm weather which caused us to stop cellar wintering, for our bees suffered quite often from the confinement, while the colonies out-of-doors were having good flights.

We learned that bees will remember their location (the field workers) after winter, so that if we do not put the colonies back in the place which they occupied before putting them in we would have more or less of a disturbance in placing them outside. So we took the habit of leaving the stand and the cap or cover of each colony on the old location, with a number marked on these as well as on the body of the hive. It would seem strange that, after spending about four or five months in a cellar, the bees should be able to remember their abode. But this was proved to us without a doubt. So we advise our friends to avoid trouble by marking the hives and returning them to the original spot.

Regularity or Variety in the Apiary

Many of our correspondents and a number of our exchanges appear to take pride in arranging their hives in regular order in rows of twenty to fifty or more; they try to place the hives in absolutely perfect order and to have them look as much alike as they can. (See the cover page of *L'Apicoltore Moderno* for July and following months.) Friends, you do not understand the requirements of the bees.

Worker bees and queens, when they fly out, must be able to recognize their hives upon their return home; otherwise they are likely to make a mistake and enter the wrong hive. For worker bees, it does not matter very much, although the bees of weak colonies are likely to be attracted to the populous ones by the display and the noise they make, and so a weak colony is likely to become weaker. But in the case of queens the danger is great and the matter is important; for if a queen enters the wrong hive as she returns from her mating trip, she is doomed, for either the bees kill her or she is killed by the queen of the hive which she enters.

A good beekeeper, then, arranges his hives so that but very few mistakes will be made by the bees in returning from the field. The man who arranges his colonies in straight rows, of absolutely similar hives, shows a love of precision but a thorough want of knowledge of the requirements of the bees. So do not arrange your colonies in straight rows. If you are compelled to place them

in that way, place some obstructions, some shade here and there; paint your hives of different colors or place them a little out of regular order, some closer, some farther apart—anything to enable the bees to recognize the exact location of their own home.

Those of our readers who are interested will find this matter already discussed in the first article of the April number and in the editorials of the May number.

Does It Pay to Plant Crops for Honey Only?

Yes, it will pay to plant sweet clover for honey only. But it may hardly be said that the planting is for only honey, for sweet clover enriches the soil and keeps it from washing and making ditches. It will pay the beekeeper even to give away the seed, and it will pay the farmer to sow it. We believe that this has been so well evidenced that it is needless to argue about it. If you have not tried it, try it now.

Sweet Water. Making Vinegar.

There is no need of wasting any water that has been used in washing cappings or washing barrels or tins that have contained honey. Such water may look dirty, but it may be easily cleansed by boiling it and straining it. Splendid vinegar may be made out of it by adding a little fruit juice to it to hurry fermentation.

As to the proper amount of honey it should contain, this may be ascertained by floating an egg in it. The egg should float, showing only a spot the size of a dime out of the water. If it is too sweet the egg will show more. If too weak it will barely float. Then add enough honey to make it float.

The first fermentation is alcoholic. When that is ended the acetic fermentation begins. But the liquid must be kept at a temperature that will permit fermentation, or between 70 and 90 degrees. If it does not turn sour quickly enough, add a little vinegar to it.

The proportion of honey that makes the best vinegar is between one and a half pounds and two pounds to the gallon. The stronger the mixture is, the slower the vinegar will be produced, but it will be stronger in the end.

Net Weight on Label

Where the net weight of a package appears on the label, care should be used to make sure that there is no shortage. The pure food laws are very strict and are designed to protect the consumer. There is no law to prevent mixing honey with other sweets if the fact is shown on the label, but if a package is labeled "pure honey" and contains such a mixture the seller is likely to get into trouble. There are reports, also, of sellers of honey being fined because the jars contained slightly less honey than the amount stated on the label.

Advertising Honey

Honey is in direct competition with nationally advertised sweets such as corn syrup. Because such sweets can be manufactured in any quantity which the trade demands, it is possible to conduct an extensive advertising campaign and make it pay. Honey, on the other hand, is produced in relatively small quantities by many producers operating under widely different conditions and getting a product of wide variation in quality. For this reason it is doubtful whether honey can ever be advertised on a national scale.

Our product must depend upon the local advertising of the producer or distributor who appeals to the trade in his own immediate locality. National Honey Week offers an especially favorable time for such efforts, since so many others are advertising at the same time that we get some benefit of the cumulative effort. If every beekeeper would keep his product before the people of his own neighborhood, the sum total of such effort would have a far-reaching effect.

Bees always arouse much interest on the part of the public, and an observation hive in a store window, together with a display of nice honey, seldom fails to stimulate sales.

Not Subject to Stings?

Frequently we meet someone who boasts that the bees never sting him. Apparently there is some basis for this claim; certainly bees are much more hostile to some persons than to others. The writer does not recall meeting anyone who could go unprotected into an apiary when the bees were on the warpath, but in an old bee magazine is an article by the late G. M. Doolittle describing such a person. According to Doolittle, he had a visitor come into his apiary at a time when the bees were stinging viciously, and, although the visitor was unprotected by veil or gloves, he did not receive a single sting. Doolittle mentioned some special reasons for annoyance to induce the bees to sting the newcomer, with the result that his helper, who was bundled up, ran away while the visitor held his position.

The writer has been inclined to believe that body odors are much stronger with some persons than others and that this might, perhaps, account for some of the difference in the behavior of the bees toward them.

The Winter Brood Nest

Now that the bees are being put into packing cases or cellars for winter, a word of caution may be timely concerning the winter brood nest. During the fall flow the bees have gradually restricted the brood nest as the late brood emerged, leaving a circular space for the winter cluster. Immediately around this space they have stored a liberal amount of pollen, which is covered with a small amount of honey and sealed to keep it from spoiling, until needed for brood rearing next spring. Where Langstroth hives are used for extracted honey production, it often happens that the greater portion of this reserve of pollen will be stored in the story immediately above the brood nest. If the beekeeper removes this upper story and winters in a single story it may easily happen that the bees will be short of pollen when brood rearing starts in the spring. This is a very common cause of weak colonies during the spring months. The beekeeper finds himself with a lot of pollen-clogged combs in his extracting house which should have been left in the brood nest of the bees.

Much of the complaint of spring dwindling which formerly appeared in the bee magazines was probably due to this cause. The beekeeper took away the supply of pollen which the bees had laid up for the needs of the future when he removed the last of the honey in late fall. If it becomes necessary to rearrange the brood nest late in the season, care should always be used to replace those combs which contain plenty of pollen, for this is the best possible insurance that the colony will be ready for the early flow next spring.

Sweet Clover and Its Value

Beekeepers are getting well acquainted with the fact that sweet clover is of great value to land. But in order to get it to grow as it should, the land must have some lime. A few wagonloads of crushed limestone help it wonderfully. In fact the presence of crushed stone on roads and in waste places explains why sweet clover is so prominent outside of fields.

Sweet clover, when once started in fields, especially such fields as are more or less ditched, helps wonderfully to repair the soil, as it sends its roots deeply into the ground and gives opportunity for other plants to grow there. Neither is there any danger of its becoming a nuisance as a weed. It takes two years for it to grow and produce seed, so that there is always plenty of chance to plow it out. We have often planted it, harvested a good crop, and then plowed it under the following season. Try it on your poorest soil, but do not forget that it needs lime.

Does Honey Prove Dangerous in Diabetes?

We have often been told that honey is absolutely safe for diabetics. But we have never heard of tests having been made upon this subject. We now have an enquiry from a beekeeper on this matter and would like to know whether tests have been made and what they were. Can any one of our physician readers enlighten us as to this by the recital of tests?



George S. Triphon — "Old Trip"



A Triphon honey float carries a real bucket of "honey"

Stopping the Slow Leaks —An Acknowledgment

By Dora Stuart-Gray
California

"Fortunately the perfection of a man's happiness bears but little relation to the size of his fortune; and many a man with the hum of bees over his head finds happiness deeper and sweeter than ever comes to the merchant prince with his cares and his thousands."

—W. Z. Hutchinson.

IF you had casually dropped in at a bee meeting and listened for hours to opinions as diverse as the poles; and if, when you had reached that helpless mental state bordering on idiocy, someone had risen up and not only voiced your sentiments but had suggested a solution, wouldn't you pursue your rescuer with grateful acknowledgments?

It was back in 1925 that I first met George J. Triphon (pronounced Tree-phon, with the accent on the first syllable). It was at the end of the afternoon session of one of California's abortive attempts to secure inspection laws and uniform enforcement through a central authority. There were those present who would require severe civil service tests to

determine their fitness for the position of county bee inspector and there were those who repudiated inspection in every form; those who believed in a state authority and optional county inspection advocates; those who looked upon inspection laws as a legal means of ousting innocent inspectors of neighboring counties. and those sincere souls who saw in adequate laws a chance for more profitable beekeeping through unified efforts. Everyone present was weary and marking time, when a dark-complexioned young man arose and was recognized by the chair.

"I am not much spicker," he began, his affable smile including the entire group; "but I want to saw a

few tings. It seems like all beekeepers tink deerferent ways when we should all tink same ways: What we need is more education so we all want same tings."

In those few short sentences an Americanized Greek immigrant touched the vulnerable spot and the confab closed with the word "education" ringing its challenge in our ears, holding its glimmering torch before our eyes and leaving the good taste of fellowship in our mouths.

"Education," that necessary precedent to cooperative effort, must be captured somehow, by force, moral 'suation, or by subtle diplomacy, to be the common property of beekeepers to have and to hold forever.

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It was six years later when I next visited Mr. Triphon. There was a tinge of gray at his temples, although he still retained his boyish smile and his faith in "education." During that period Mr. Triphon chose a bride from his native country, but both are now citizens of the United States. Two small boys are growing up to perpetuate and enjoy the ideals and achievements of their home.

Born in Greece, in a town known to historians as Morea, he lived there until sixteen, imbibing all that was best in the traditions and ideals of Greek citizenship. He brought to this country a mind open only to the best. He soon found one radical difference. In the United States, to make a name, one must first make money. In Greece, to make a name, one must first excel in some walk of life.

In America

His first occupation here was working on county roads. He then tried the railroad as an extra gang foreman, then as a section boss, but he liked this no better. At that time he came across some university bulletins offering correspondence courses, and he decided to study medicine. But he found that to be a doctor would take too long, so he began the study of law, and after a few months concluded that he must first build himself up financially and then decide what he could best do.

As he explained it, "I didn't know what I didn't want. I only knew I must know myself thoroughly, and then through study and concentration find out about the other fellow. First I must know English to learn the customs of my adopted country, and then I must find some occupation that would make money."

Bees

Carrying out his decision, he began keeping bees. He knew nothing about bees except the little he had read in his father's library in Greece, but he had spare time each day that could be devoted to building up an apiary. Beginning with one colony purchased from his small savings in 1916, with the help of his brothers, he has built up one of the most important centers of the bee industry in California, incorporated since 1929. When asked how many colonies he has, he replies, "A few in Solano, a few in Yolo and a few in Sacramento counties." He ships bees, produces honey and has a queen business.

He has definite ideas about the comparison between beekeeping with other occupations in these times of depression. "Take keekeeping through and through," he says, "the beekeeper is better off than the average producer of food. He has an article that is imperishable, can be sold in retail or wholesale quantities,

a food article for which there is some demand and for which a demand can easily be created."

At the state fair, Mr. Triphon has regularly carried off the prizes; his float in a street parade is still a topic of conversation; he talks about bees intelligently and enthusiastically. He organized the Sacramento Region Beekeepers' Club, of which he was the first president, and its forty members are "real members, not paper members," he reminds you. They represent six northern California counties. It is an organization toward a better understanding.

I was anxious to know how he applied "education" to his business—just what part his quest for knowledge played in his success. As though in answer to my unspoken wish, he showed me the final lesson of his last correspondence course, in which were the questions:

"How can we succeed better in life?" Answer, "By knowledge and practice."

"What is a failure in life?" Answer, "A slow leak."

Applying it to beekeeping, Mr. Triphon explains that the slow leak may be found in marketing, in not having proper stock, in not selling the product at the right time.

He spares no time or expense in checking up on a suspected slow leak. Last year he made two trips to Canada to learn first hand in what condition his package bees arrived. He beat the bees there, arriving in time to see them landed in the station and delivered.

Mr. Triphon, through his power of self-discipline, has built a business in the time wasted by the average beekeeper, who, on the theory that time has no value, proceeds to give it away, packing honey, making shipping cages, etc., thereby lowering the selling price of apiary products.

"How much time do I work? How much time do I study? How much time do I sleep, and how much time do I waste?" were the questions that Mr. Triphon put to himself, resulting in a budget that brought results. The first year showed a saving of thirty-six working days of eight hours each, and the second year a saving of twenty-four days, showing him the appalling waste of other years even in a life apparently full. Mr. Triphon states that he was frank with himself in this timekeeping, as it was done solely for himself without thought of publicity, and it was he who was most surprised at "how many hours I wasted in a day when I could be doing something for myself or for somebody else."

No sketch of Mr. Triphon would be complete without a glimpse of his marketing emblem. Nowhere is his originality more in evidence than in his bee literature and in his brand.

One cannot be considered without the other. They are Siamese twins. It is a combination label and advertising folder. When one sees the brand "Sweet Trail" and follows that trail of bees across the label to the pictured beehive, and from the hive to the family seated at the table, he would know that he is not looking at a stock label. When you see it affixed to a tin pail, you do not realize that facts about honey and recipes for its use are printed on the back so that when folded the printed matter on the inside and the label makes the colorful outside cover into a most attractive folder that can be handed out to prospective customers.

As a Business Man

When one sees Mr. Triphon in the role of host to scores of appreciative beekeepers who have enjoyed his hospitality at the meetings of the Sacramento Beekeepers' Club held in his North Sacramento Hotel, one wonders if the hotel were bought to provide a headquarters for the club or whether he organized the club so that its members might enjoy his hotel. His explanation is that he wanted to branch out from beekeeping; to "progress from wages, or salary, to independent operations." Although he admits he chose North Sacramento because people all over northern California would have to pass his door, his business judgment was confirmed by other dreamers, among whom were bankers, financially able to make their dreams come true. Mr. Triphon believes that the two Sacramentos will inevitably become one city and that the first step was taken when the flood control project became a fact. The two cities were obliged to act together to secure the full benefit and protection of the measure.

Believing this union of the two cities to be inevitable, Mr. Triphon acquired the hotel and made it the headquarters of the Sacramento Region Bee Club, to which any beekeeper in California may belong and find a welcome from its founder and host, "Old Trip," as he is affectionately known.

Originality, independence, fairness, generosity, idealism, are qualities for leadership, and possessing them in a large measure, it was only natural that George J. Triphon should have been elected vice-president of the California State Beekeepers' Association last November, when their annual convention was brought to Sacramento through his efforts.

Lima Beans

Prepare lima beans as ordinarily when cooking fresh ones. Just before removing from fire, add one tablespoonful warm honey for each two cups of lima beans used. Add salt and butter as usually done.



In Winter, Bees Really Eat More When Warm and Less When Cold

By C. L. Corkins
University of Wyoming

This is the second of two articles on wintering giving the results of experiments at the Wyoming Experiment Station. The first article appeared in October.

THOSE who read the first of these two articles about our experiments must keep in mind that the colonies were well protected. During about three hours of the morning they warmed up quickly, often taking a short flight in warm weather and moving honey into the cluster during moderately cold weather. For the most part, bees were not far from clustering temperature. However, less honey was used during cold periods than during periods of what we call ideal temperature. These cold periods include temperatures down to 41 degrees below zero. There was less activity during this cold in all colonies regardless of their protection.

Different degrees of protection were given to colonies to see if it would cut down consumption of stores. If our old idea of wintering is correct, packing should lessen the activity of the bees. That's the reason we have packed bees.

During the last two years of our experiments hive temperatures were at or near those which had been considered productive of the least activity, and so the greatest loss in weight of colonies should have occurred in unprotected colonies during cold periods.

Such was not the case. Loss in weight increased just the opposite way—from cold periods to warm periods. The consumption of stores in every case was less during cold than it was during warm periods.

It is also apparent that cold weather does not materially increase activity in the winter cluster. Unprotected colonies do not show a

greater daily loss in weight than protected colonies, and usually show less loss. **Every test we have made gives the same story—low honey consumption in cold weather. When the temperature rises, however, stores consumption increases. When the temperature is down, the stores consumption is down, so we have to conclude that warm weather in winter brings about activity and wearing out of the bees, and not cold weather.**

These studies have been fascinating to me. They may have taken some of the romance out of the story of winter activity. But romance is only fiction and will not butter our bread. We used to think that the activity of bees in winter increases as the temperature goes down below the clustering temperature; that, as the temperature continues to go down, the temperature in the heat-producing area of the cluster goes up. So we have come to accept the idea that bees continue to work in winter to keep warm, moving their legs, their abdomens, fanning with their wings like a man who on a cold day stamps his feet and swings his arms.

In our experiments the striking thing has been that the cluster temperature remains almost constant regardless of big changes in the temperature outdoors. As Floyd Gibbons would say, it is a thing that knocks your hat off—how nearly even the bees keep their cluster temperature regardless of outside weather.

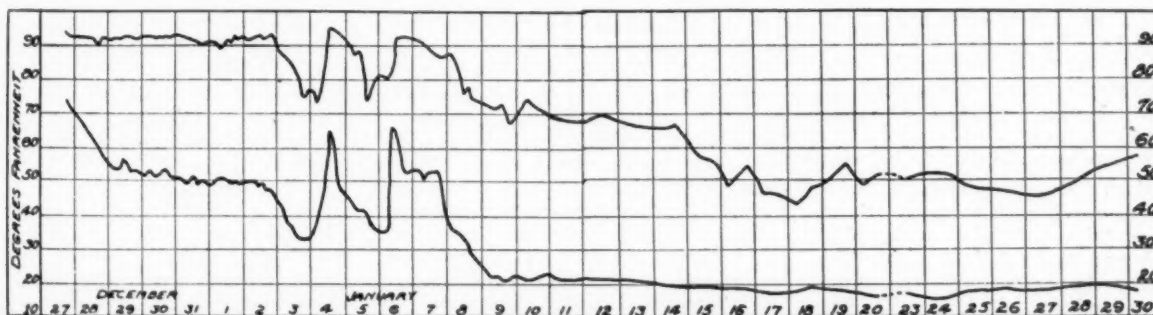
Our studies show that the mean cluster temperature is maintained on this fairly even level due to the

change in the rate of radiation as it is effected by the expansion and contraction of the cluster. However, there are certain limits to cluster contraction, and when the temperature of the air about the cluster goes down to the point where radiation and the subsequent loss of heat removes heat faster than it can be produced, of course the temperature of the cluster drops. This is true, no doubt, both at the surface and at the center. The larger the winter cluster, the less likely bees are to suffer from this situation.

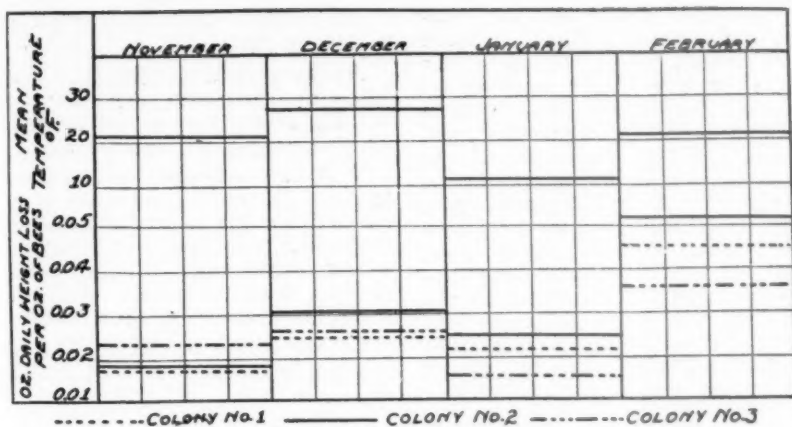
The fascination in the study of these temperature reactions lies in the fact that the bees can keep their cluster warm enough to maintain life without any more than their usual activity. It is not a story of the piling of more and more fuel into the hot air furnace (the honeybee), as sub-zero weather sends man to his artificially heated homes. Cluster temperatures, within certain broad limits, remain remarkably constant in the overwintering colony regardless of the outdoor temperature.

One might think that if the cluster temperature were the same when it was 32 degrees F. outdoors as it was when it was zero, that the bees would have to work harder and produce more heat to maintain this constant temperature. Such is not the case.

The cluster expansion and contraction during winter is a well known fact and it has been mentioned many times, but its significance has been overlooked. Prof. H. F. Wilson and Dr. Wallace Park have recognized its



Temperature relations under controlled external temperature conditions. Records taken every three hours. The upper curve is the mean cluster temperature; the lower one, the mean hive temperature.



Temperature and daily loss in weight relations, by monthly periods. 1929-1930.

possible significance, but have not measured its possibilities in heat conservation.

Here I must apologize for using a technical term for the winter cluster—"normal metabolic heat," which means the normal amount of heat released by bees when comparatively inactive in a loose cluster with the hive temperature close to cluster temperature.

Bees do not hibernate, and they do not reduce their heat production to almost nothing, as do many other

insects. There is some heat production as long as there is life. According to the old idea of wintering, the extra heat produced would be called "extra-normal metabolic heat," as contrasted with "normal metabolic heat." The loss of normal metabolic heat from the cluster occurs by conduction, convection, and radiation. Only the rate of loss by radiation, however, brings rapid changes in the hive from the cluster as the hive temperature changes.

Here is what happens in the case

of loss of heat by radiation from the honeybee cluster: The cluster contracts with cold and expands with warmth. The accompanying illustrations show this relationship. The big cluster was formed with an outside temperature of 39.2 F. The small cluster contracted to its size when the outside temperature was 25.8 below zero. Both represent the same cluster of bees.

According to the law of radiation, the amount of heat lost from a radiating body increases as the temperature towards which radiation takes place decreases. So a steam radiator supplied with an even amount of heat would lose heat more rapidly in a cold room than in a warm room.

We know if we had two radiators on the same heat line in the same room and one had half the radiation surface of the other, that the small radiator would give off only half as much heat as the big one, all other conditions being equal.

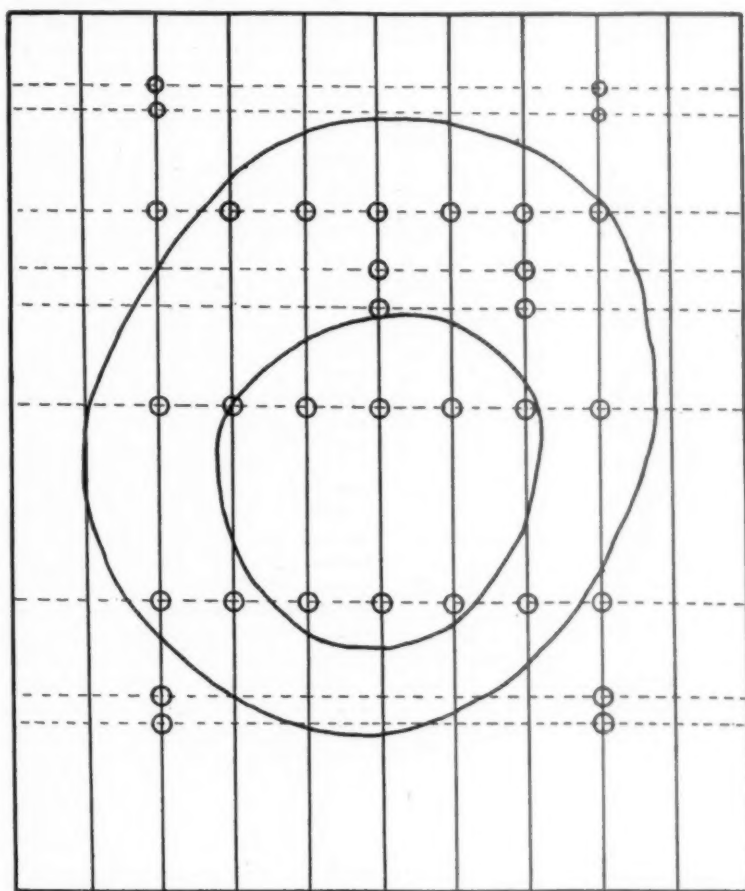
And so it is with bees. To make up for rapid loss of heat in cold weather, the bees instinctively contract the size of their "radiator," or cluster. Remember this cluster is more or less a sphere. The outside surface is the radiating surface, and if you know your geometry you will remember that the surface of the sphere reduces in the second power with a change in the diameter of the cluster. A small contraction of the cluster, therefore, will bring about a greater correspondingly lessened surface of radiation from which heat is lost.

So the measurement of the size of a cluster of bees of the same colony for ten very cold periods and ten warm periods, during the winter of 1929-30, shows the following facts:

If there had been no contraction of the cluster during the cold periods, the rate of heat lost by radiation would have been increased on an average of 158 per cent, but because the cluster does contract, the average increase in the loss of heat from the cluster was reduced to only 18 per cent. If the cluster had not contracted, therefore, there would have been nearly nine times as much heat lost from it by radiation during cold than was lost during warm periods.

In addition to the conservation of normal metabolic heat by cluster contraction, we must not lose sight of the fact that bees bring about a greater insulation value to their cluster when the cluster tightens, which cuts down losses by convection and lessens the flow of heat from the inside to the outside by conduction.

So, by the simple process of the mechanics of cluster contraction, bees can hold their normal cluster temperature up during cold weather with the production of only normal



Cluster contraction in relation to weather.. Colony 3. Small circles represent position of thermo-couples between the frames. Of the two large circles, the inner one represents the cluster when the outside temperature was -25.5 F., January 17, 1930. The larger one represents the cluster when the outside temperature was 39.2 F., February 19, 1930.

metabolic heat—with no extra-normal heat as the old theory disclosed.

There is a limit naturally to which contraction can go, and when this limit is reached the loss of heat by radiation will greatly increase. We have seen this situation under controlled temperatures. However, we have never seen such a condition with normal sized colonies under outdoor conditions, even when they were unpacked.

During the last three years of this experiment, flight activities of the colonies were also noticed, and they show in general that bees with all kinds of protection fly at about the same time, although in the single packing cases the flight was slower and less general each time. Good cleansing flights occurred when the mean temperature was 35 degrees F. or more, and lesser flights occurred with the temperature down to as low as 30 degrees F.

From this experiment we must not conclude that it is wise to do away with all winter protection in cold climates. If there are long periods of sub-zero weather, the bees use up their supply of honey in the cluster, and since the outside temperatures may at that time be below the critical temperature of life, 30.25 degrees F., the bees cannot leave their cluster, which may have contracted away from their food supply so that they cannot replenish their stores, and so they starve.

Also, there may be periods when the loss of heat cannot be reduced further by the contraction of the cluster, so the loss of bees will be greater than the activity of the bees can offset. As a result, they die.

During the course of these experiments there were no such periods. The resistance to cold which the bees showed was remarkable. During the most critical period of sixteen days, all but three had sub-zero minimums, one as low as 41 degrees below zero. The mean minimum temperature for this period was 12.2 degrees below zero and the maximum 18.3 degrees. One day it remained below zero for twenty-four hours. The highest temperature during the period was 30 degrees. All but one of the unpacked colonies survived such a severe test, which was truly astounding.

The facts from these experiments harmonize with practical experience in the intermountain region. Only a few beekeepers have packed their bees in agreement with the standards generally recommended. They have used as a whole far less packing than has been advised, and in some instances they have used no packing at all. Each beekeeper has arrived at his own requirements by trial and error and has come close to the ideal.

These studies emphasize the importance of other recognized factors

for successful wintering. It is certain, for instance, that too much stress cannot be placed upon the supply of a sufficient quantity of stores of the best quality, free from dextrine, not likely to granulate, and properly placed in the hives. It emphasizes the need for young queens. It emphasizes the establishment of a normal colony of good strength containing both old and young bees, with sufficient ventilation and protected by a good windbreak from the prevailing winds. It also shows that attention should be given to prevent unnecessary flights, especially in the fall and early spring.

We must conclude from these experiments that:

As the outdoor temperature drops below the clustering temperature the activity of the bees is not much increased, or possibly not at all.

That bees ordinarily do not freeze to death in winter, a majority of the losses being due to starvation within the cluster, with plenty of honey just a few inches away. In the winter cluster, then, remember starvation comes first and freezing afterwards.

So, we repeat in closing, bees do not freeze to death in winter—they starve.

More "Graft" in the Bee Business

By H. A. Insinger
Missouri

HONEY-BOUND, all around! Colonies? Many of them. Beekeepers? Probably 99 per cent of them, if not all. And, I dare say, this prevailing condition is largely of their own making. Hold your bucking bronchos now, gents!

Of their own making, I say, in so far that they are not availing themselves of the recognized agency (one that is sponsored by far-seeing friends) that offers most dignified and high class advertising at a ridiculously low cost—almost nothing if one speaks collectively.

Gentlemen, I urge you to support our American Honey Institute. Beekeepers, it is my idea that you are underrating the work of this desirable medium because your individual crop stays put. Sluggish movement of your surplus is no criterion to judge the effective work of your A. H. I. For yours it is, whether you support it or let your indifference be one of those minor stabs that will eventually bring about your Institute's inglorious end.

This indifference on the part of the rank and file of beekeepers throughout our country is a blotch on the fraternity. Many a different organization would certainly welcome with open arms an inexpensive, yet thorough and far-reaching, publicity medium as is ours in the A. H. I.

A. H. I. works from the bottom up. Through it we get basal publicity. Its secretary, Malitta F. Jensen, is not a high-pressure saleslady who aims to sell your few pounds of "waffle paste" and start all over again next year.

Of the American beekeepers, I venture to say, 90 per cent have no inkling of the scope of publicity honey is given by A. H. I., for thousands consider a subscription to a bee magazine as money thrown away, and more thousands don't pay much attention to what they read, if at

all the magazine is read. Within a radius of four miles of me live five beekeepers who do not subscribe to any professional literature. Last year I had an inquiry from a producer, who bottled upward of 100,000 pounds of his own honey, where he might get hold of Kellogg's little stickers, and what they cost. These two facts speak volumes and probably do explain somewhat the apparent lack of enthusiasm in the cause of A. H. I. This, now, does not and should not keep you from boosting and soliciting help from such uninformed folk.

To become better posted on the activity of A. H. I., one of two things may be done: One, write to the secretary, American Honey Institute, 417 North Few Street, Madison, Wisconsin, and ask her to give you some dope on what is being accomplished (inclose postage). The other and better way is to send her the request for the SCRAP BOOK. It will come postpaid. In the "bee meeting" thoroughly go over all the information and do not "cuss," but discuss it from every conceivable angle. To insure a timely arrival of the SCRAP BOOK for your meeting, the secretary desires the request two or three weeks before the planned meeting. This latter plan, of course, affords far more intelligent publicity for the work of the Institute and it is not apt to throw the Institute into bankruptcy due to a flood of inquiries.

That SCRAP BOOK, gentlemen, will be an eye-opener. It offers a wealth of detail about what is being accomplished. It affords plenty of leads for you to follow up and make sales. It suggests innumerable methods of cooperation with a variety of storekeepers. It shows a great variety of printed matter, as recipes, suggestions on using honey, tracts, etc., that can be had at cost. From it you can find out where to get FREE printed matter that may be

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passed out to boost your own honey sales. But what's the use of talking! Folks, get the S. B.! Digest the offered material. Be sure to jot down titles and other pertinent data so you may order whatever helps you will want to skyrocket your sales. Don't let it go at that; get the stuff, too—and use it. Carry out these suggestions and thus avail yourself of the services of A. H. I.

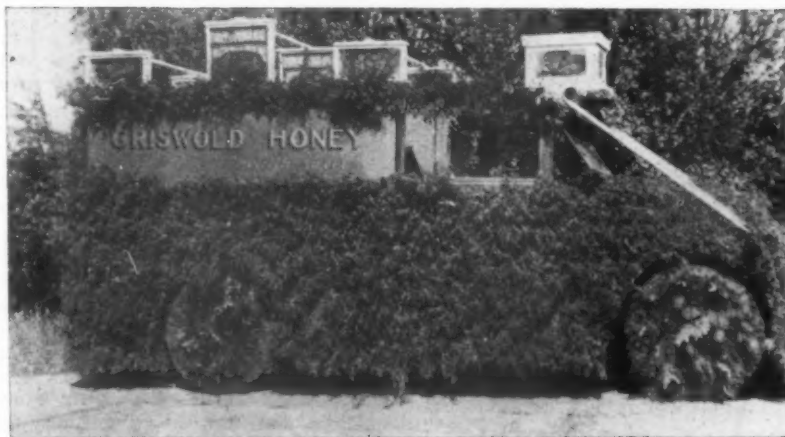
Since A. H. I. has paved the way, what are you going to do for the paving company? The Institute will take your cash—yes, all the way up to a million dollars. However, it is also glad, very much so, to accept for its services some of your honey—the honey that is just now heavy on your hands anyhow. All it asks is twenty pounds out of every ton you harvest, and, mind you, you are not budgeted to that. If you are inclined to give more, do so by all means. Your whole crop will be accepted with thanks, and it is one way to dispose of it. Receivers for these honey donations can be found in the bee magazines, or a list of them may be secured from the A. H. I.

Getting these honey donations assembled is where the rub comes in. The average beekeeper loathes to bundle up odd lots of honey and send it on its way. Neither will the receiver relish the accumulation of myriad mixed containers. Here's the thing to do: Give the SCRAP BOOK literature undivided attention. **When all you bee men have concluded that the Institute is really worthy of your whole-hearted support it is time to appoint a collector, give him a supply of sixties and bid him to make the round of producers to gather in the individual donations and, ultimately, to consign it to the proper receiver. The shipping expense might be borne by the local association.**

Now, fellow beekeepers, let's put our wheel to the shoulders, as Andy says, and push the mired Institute cart onto a solid roadbed. Let's realize, also, that said cart must needs be kept going, too. Get a collection under way. There is pressing necessity to have a collector in each locality to go and contact every producer. It is the sure way which spells results and assures adequate support so the splendid enterprise, once and for all, may become established on a firm basis. Whatever little or much honey you chip in, it'll pay big dividends in time to come.

Cooperation, definite and lasting, with our American Honey Institute is the idea I'm trying to implant in your mind. And here is hoping that it will bring an abundance of fruit.

An Aid to Sales



Above cut shows one of our large honey trucks as decorated for national event and county fair. Live bees anywhere always attract attention from everybody and are a drawing card in any display, and while many people know little about them, most everybody knows something of them, particularly that they will sting and further that they make honey and that honey is one of the world's greatest health sweets.

We beekeepers are perhaps the poorest class of advertisers of our products of any class of food producers in the world today. Most of us are too easily satisfied; we go ahead and produce a crop of comb honey or extract, or both, and then the trouble comes in selling it at a profit to either the public direct, to stores-markets or to wholesale houses. A few of us are on main highways and have little trouble in selling from our honey stands direct at retail prices all honey produced. But the bulk of the honey crop cannot be sold this way, but is sold through stores and markets, and many producers have to ship long distances at very low prices, with little, if any, profit, especially during the present depression.

However, we have and are developing a system of merchandising honey, maple syrup and various products of same that is fairly satisfactory. But we have more than one string to our bow, for we sell by mail, by truck, direct at our stand, and supply many large stands in adjoining states, and the large markets of Cleveland, Pittsburgh, Erie and other points. Attractive labels, literature, circulars and above all, goods always uniform and prompt shipments and deliveries are main features with us.

It is always good business to have good, well finished, properly decorated and lettered trucks, kept clean, driving about the country and in the cities, for people certainly take notice and remember when they come to buy honey, maple syrup, meats and

groceries, and give preference in buying same. It has always paid to advertise and it still pays, and we beekeepers must do more of it—in the papers, the magazines, on our trucks, our labels, on shipments, parcel post and express packages, on the air by radio—yes, tell the world how fine honey is, how healthy, its many virtues to prevent sickness and disease, how cheap; and you will be surprised how it will help you to—sell honey, at a profit.

G. G. Griswold, Ohio.

A Good Settling Tank

Here's a picture of a settling tank devised by George Watt, of the Platte Valley Apiaries, in Nebraska. It is simple and efficient.

The tank is provided with a honey gate at the bottom and has a closed top with an opening just the size of the cap shown in the picture. The cap fits snugly on the tank when it is not in use. The hole in the top is large enough to put in a wire strainer. A cheesecloth strainer may also be used, too, for a better job of separation. A tank can be secured of any capacity to suit. Honey is run directly into the tank from the extractor, by gravity or by pump.



Trying Out the Chlorine Treatment

By Samuel Cushman
Illinois

I LEARNED by telephoning local agents that the cost of any gas container holding less than one hundred pounds is very high. One hundred pounds in a steel cylinder in Chicago warehouse could be had for \$9.00, but a deposit of \$20.00 was required to insure the return of the cylinder in good order. It was also impressed upon me that the gas must be used with precaution, as it injures the lungs if breathed. It is heavier than air, flowing along the ground or floor until it is gradually dissipated. It will kill vegetation over which it passes.

I was supplied with a clamp to hold the tube or pipe against the cylinder valve, and I also secured a small size rubber hose of the desired length. Then I ordered a cylinder and bought a floor platform scale on which to stand it.

The problem of a wooden tank seemed to mean expense if the tank were to be large enough to hold many supers of combs. I looked for large casks and found them, holding 180 to 200 gallons, in which pickled olives had been shipped from Europe. These could be secured from cooperage firms at \$5.00 each, but I secured three of them at that price from the firm that imported the olives. They would hold six bodies each, but as I wanted to run all three at once I procured a T connection and three rubber tubes.

Since the cylinder valve of the gas tank did not seem to control the flow of gas as closely as seemed necessary, an additional valve with a circular hole was attached to the T connecting the three rubber tubes leading to the bottom of the tanks, loaded with super combs, placed in water. When turning on the gas from the cylinder as it stood on the scale, tied to an upright, it was necessary to be on the windward side or to hold the breath while moving the valve. The ends of the rubber tubes in the tank had been plugged and holes cut in the rubber in several places near the plugged ends to diffuse the gas. However, they were not near enough alike to insure an even flow of gas and so too much gas had to be let on to insure a steady flow in all three tubes. Constant attention was not given from morning to night, so the gas escaped too fast and the solution was too strong. The combs were given an overdose and the cylinder emptied too soon. Those working too near the escaping gas were likely to get a breath of it if the wind changed and although the irritation was not lasting, a greater exposure might have been serious.

When the supers or bodies were removed from the casks they were stacked crisscross out-of-doors. All this work was done in the open. The solution was then shaken out of the combs, the combs being held between folded pieces of galvanized wire netting to prevent breakage. The overdose of chlorine bleached the wax somewhat, corroded the wires and changed the color of the paint of the hives. Two months airing failed to remove the chlorine odor. On putting them on the hives the bees were slow to use them or to rear brood in them, although they eventually did so. Honey stored in the combs had some of the chlorine taste and odor.

From this experience it appears that constant attention should be given during this process and only one tank connected to a gas cylinder at a time. Tests should be made to insure enough and not too much gas in the solution, and after sufficient time has been given to insure complete sterilization of the combs a bath or spray of something to remove all the chlorine odor and taste is necessary to make the cells safe for larvae and to protect the honey from contamination.

It should be remarked too that nothing has grown on the ground on which the solution from the tanks is poured. Even the rhubarb plants which it reached are dying. We notice too that the gas corrodes the tubes, valve handles and the metal parts of the scales. These scales come in handy now to weigh daily income of one of the best jumbo colonies.

It may be that this method, developed in all its details, will be valuable in a big commercial apiary, but it is too uncertain and risky for the average beekeeper.

[This experience of Mr. Cushman corroborates our own. We tried washing the combs as he suggests. The results were not favorable, as the odor and disagreeable physical conditions were still too pronounced. The evil effects of the gas in the ways mentioned were also too difficult to avoid.]

There is another phase to treating combs, which is not mentioned. That is the difficulty of getting them from the apiary, in which diseased colonies are found, to the place of treatment. There is live, healthy brood with which to contend; there is honey which must be removed; there is the trip from the apiary; there is the handling of the combs many times, and throughout the course of this the chances for spreading the disease are too great.—Editor.]

Disturbance Not Our Cause of Queen Loss

By William Mosteller
Wyoming

IN regard to the article in your October number, "Leave Those Packages Alone," by Kenneth Hawkins, I think that in many cases our good friend is entirely right, but that he is NOT right in regard to a large percentage of lost queens in the intermountain region, I am very sure.

Since I have not discussed my trouble with Mr. Hawkins nor has he any knowledge of the acute trouble existing in my apiaries for the past five years, it would be unfair to him to demand an explanation of our unusual trouble with queens. I had no such experience beyond normal through the period of my beginning years and the years afterwards.

Except when I move bees to out-yards, it is seldom that I disturb them for two weeks at a time, unless there is a very necessary reason for doing so. Yet it is not uncommon to have colonies supersede or attempt to supersede several times in the summer. In many cases the queens disappear without leaving eggs, so a ruinous percentage of hopelessly queenlessness colonies results.

It is significant that the four queens which I have been able to catch at a critical time proved to be diseased; also that it is not uncommon to examine a hive well populated with bees, and which no living thing except perhaps insects has been near for two weeks or more, and find fresh eggs, but not a sign of a queen and no cells started.

It is worthy of note too that these queens are absent before being disturbed—not afterward. Another phase of the situation is the fact that for the past two seasons a large percentage of queens have died in their cells two or three days before maturity.

About ten years have passed since the first wholly abnormal and unexplainable disappearance of queens occurred in my apiaries, but the conditions did not become really serious until six years ago. During all this time most of the reputedly competent authorities advanced almost every excuse under the sun for the condition rather than to investigate.

Three years ago, however, James I. Hambleton authorized Dr. Sturdevant to visit my apiaries. He did so that year and the two following ones. The net result has been to determine that my bees suffered from Nosema to a serious extent, but nothing definite could be learned about the queens in the short time at his disposal. It was not until Sturdevant (Please turn to page 450)

"World's Largest Store" Sells Honey

By Natt Noyes Dodge
Washington



This display of live bees helped to sell 2136 packages of honey in the Seattle retail store of Sears, Roebuck & Co. during the summer of 1931. Store employees are examining the display and selecting honey for the folks at home.



"BEEES!"

"Yes sir, bees!" exclaimed Herbert F. Smith. For two hours the popular and energetic manager of the Seattle retail store of Sears, Roebuck & Co. had been tossing in his bed, rummaging under counters and through the stockroom of his brain for an idea—not an every-day idea, but one of the big seller kind that puts pep into sales-people, draws customers and causes envious subordinates to say, "Gosh, why didn't I think of that?" And then, all of a sudden, Mr. Smith remembered seeing somewhere live bees in a glass case surrounded by a crowd of curious people.

"Ha," said Mr. Smith, slapping his thigh so that he almost tore the sheet, "Bees! That's it, bees!" Then he drew a deep breath of satisfaction and went to sleep.

So the Seattle store early in March, 1931, made an innovation in display materials which, according to Mr. Smith, is "without doubt the most

valuable interest-attracting device we have ever used."

The morning after the birth of the idea Mr. Smith met a beekeeper familiar with the use of observation hives in displaying bees at fairs. Smith arranged with the beekeeper to make one of these display cases and to provide combs and bees for the display for a month, agreeing it be continued if it "went across."

The beekeeper was interested in displaying bees in connection with the beekeepers' supply section in the store and promised to help make the display a success. He gave Mr. Smith a jar of honey bearing the label of the beekeepers' marketing cooperative with which he was affiliated.

The honey appealed very strongly to Mr. Smith's sense of the delicious and gave him another idea. Why not sell this honey packed by the beekeepers' cooperative? So he arranged with the beekeeper for more bees, and two observation hives instead of one. At the store a small place was made for the honey on a table beside the main aisle on the first floor near the elevator.

The two display hives of bees, one in the bee supply section on the second floor and one on the honey table near the elevator, were put in on March 7, 1931. From then on a group of interested customers have always been present to watch the bees moving about over the comb inside the glass case. Persons who see the displays tell their friends, and these people come into the store to look at the bees.

During the first month \$125.00 worth of honey was sold. So pleased was Mr. Smith that he arranged with the beekeeper to supply the bees indefinitely, even during the winter, when disturbing the cluster might result in the loss of one or two colonies. The bees became the talk of the store, and the head of the advertising department confided to his assistant that "Smith has a bee in his bonnet."

Bonnet or no bonnet, when Mr. Smith starts with anything he sees it through. Whenever any new line of human endeavor comes to his attention he learns all he can about it. The first thing he did when he began to sell bees and honey was to visit the honey packing plant of the cooperative and learn how honey was handled before it was put into pails and jars.

Next he bought a two-pound package of bees and became an amateur beekeeper. This spring he intends to get two more packages and increase his apiary. He grows fancy dahlias as a hobby and knows the name of every dahlia on his place. If anyone asks him a question he cannot answer, he finds out about it at once.

(Please turn to page 450)



The Sears, Roebuck & Co. store in Seattle

The observation hives are taken to the beekeeper every Friday so the combs and bees may be replaced with others, fresh from the hive.



The Colloidal Constituents of Honey and Their Effect on Foaming and Scum Formation

By R. E. Lothrop and H. S. Paine
Carbohydrate Division, Bureau of Chemistry and Soils
U. S. Department of Agriculture

IN a previous article (1) published in this journal the authors pointed out the occurrence of small quantities of substances in honey that are present in the so-called "colloidal state." In general, colloids are the gummy, non-crystalline substances of nature in contradistinction to substances, such as sugar and salt, which crystallize readily. Although present in relatively small amounts, these honey colloids nevertheless exert a pronounced influence on certain properties of honey, such as foaming and the formation of foam and scum layers. In strained honeys of certain types the formation of a layer of scum at the surface is particularly troublesome and is to be avoided if possible, since its presence detracts from the general appearance of honey packed in glass containers.

A recent investigation carried out in the carbohydrate division has thrown considerable light on the relation between foaming of honey and the colloidal constituents present. The behavior of honey in this respect can be more easily understood, perhaps, by comparing it with that of soap dissolved in water. Soap is a colloidal substance and the foaming of its water solution is due essentially to the effect of the dissolved soap in lowering the surface tension of water.

Surface tension is a phenomenon common to all liquids and represents the pull of the surface film of liquid, which in turn is caused by the unbalanced attraction of the molecules at the surface. The spherical shape of a drop of water is caused by surface tension, the portion of liquid comprising the drop being drawn into the shape of a sphere by the surface pull. Its action here may be likened to that of a tightly fitting rubber cover which is under tension and encloses the water droplet. The trick of floating a needle on water also depends on the surface tension of the liquid.

Surface tension can be measured by determining the force (usually expressed in dynes) necessary to break a definite length of the surface film (usually one centimeter). One method that is commonly used employs a small platinum ring which is placed just below the surface of

the liquid and then is drawn up until it "breaks" the film, the force or pull required on the ring being measured at the same time. The apparatus used for this purpose consists of a ring six centimeters (about 2½ inches) in circumference, made of fine platinum wire and suspended so that the force or pull downward on the ring at all times is indicated on a dial. After contact has been made between the ring and the surface film of the liquid, a pull is gradually applied to the ring until the film "breaks," at which point the ring suddenly separates from the extended liquid film. The pull exerted on the ring at the time the film breaks is indicated on the dial. From this value the surface tension of the liquid is obtained.

A characteristic property of colloidal substances is the lowering of surface tension they cause in the liquid in which they are present. For instance, the surface tension of water is approximately 73 dynes, whereas when soap is dissolved in water to the saturation point the surface tension is reduced to about 25 dynes. This lowering of the surface tension of water by dissolved soap allows the bubbles on the surface (which constitute the suds or foam) to remain intact for considerable periods of time, whereas with pure water the greater surface tension on the thin film comprising the "skin" of the bubble causes it to break, allowing the entrapped air to escape. It is difficult to form permanent foam on pure water, whereas soap solutions foam very readily.

It has been demonstrated in the case of honey that the colloidal constituents present lower the surface tension to a considerable extent, although not so much as do soaps dissolved in water. This lowering of the surface tension of honey by colloids is somewhat analogous to the action of soap on water, so that the formation of foam and the emulsification of small air bubbles in honey takes place with greater facility due to the presence of colloids.

Demonstration of the lowering of the surface tension of honey by colloids was carried out as follows: A portion of the honey to be studied was filtered through a thin sheet of collodion in order to free it approximately from colloidal constituents. This collodion sheet allowed sugar and other substances present in true

solution in honey to pass through, but retained colloidal constituents present in the form of very fine particles. Filtration of this character is termed "ultrafiltration," because it removes particles of much smaller size than those removed by ordinary methods of filtration. The surface tension of this solution was then determined and compared with the surface tension of the same honey before ultrafiltration. A number of honeys were examined in this manner and in every case it was found that the surface tension was lowered considerably by the presence of colloids and was increased when colloids were removed.

It was also observed that honey after being rendered approximately free of colloids by ultrafiltration through sheets of collodion had very little tendency to form a layer of foam on the surface, such as is frequently noted with honeys of certain types. Buckwheat honey, for instance, when stirred or otherwise agitated usually forms a considerable layer of foam, but after the colloids are removed this tendency is almost entirely lacking. The same observation was made with regard to the incorporation of minute air bubbles in honey, emulsification of air being facilitated by the presence of colloids. In both cases the effect is due largely to the decrease in surface tension produced by colloids.

Paralleling the effect of colloids in promoting the formation of foam and scum layers is the effect produced by colloids when honey is used in the manufacture of candy or for similar purposes which require heating to elevated temperatures. By using a standard "candy test" the foaming of honey incorporated in the "candy mix" was compared before and after the removal of colloids from the honey. A marked lessening of the tendency of the honey to foam was noted after it had been rendered approximately free of colloids. This difference was especially pronounced in the case of honeys containing relatively large quantities of colloids. Experiments are now under way with the purpose of devising a commercially practicable method for freeing honey from those objectionable colloidal substances which are present in such minute proportions in honey, but which, nevertheless, have a pronounced influence in causing foam-
(Please turn to page 450)

1. "The Colloidal Constituents of Honey and Their Influence on Color and Clarity," by R. E. Lothrop and H. S. Paine, *American Bee Journal*, Vol. 71, No. 6, pages 280-1 and 291, June, 1931.

November Sales Hints

By David I. Day
Indiana

EVERY November the red letter day is Thanksgiving Day. Even in depression times, in the homes of America dinners on Thanksgiving represent the peak of proficiency in the culinary art. In this collection of good things honey should be represented.

There is nothing quite so delicious as good honey; nothing which gives a more delightful touch. Comb honey is especially beautiful on the feast table.

Historically, there is every support for honey on Thanksgiving. Remember the Pilgrims landed on Cape Cod November 21, 1620. They lived on shipboard until rude homes had been made ready when the Mayflower sailed away with its place firmly fixed in history. To the Pilgrims the discovery of a bee tree was really something. It meant a delicacy so appreciated that we can scarcely understand it in these days of delivered groceries, curb service and all kinds of sweets.

Start Soliciting November 1

Thanksgiving Day does not arrive until the twenty-fourth of the month this year, but the wise honey producer starts soliciting when the month starts.

Listen to a thirty-colony beekeeper in West Virginia: "Last fall I had a little over one thousand pounds of honey and no market in sight, and, like a lot of other people, we needed some money. My wife suggested I solicit orders for delivery the week before Thanksgiving. So, after the morning chores were done each day, I drove to town, a small one of less than three thousand people, and showed honey samples and talked honey for Thanksgiving dinner. Most of my orders were really for Thanksgiving. I sold every ounce I had and got 20 cents per pound for it."

He had a limited amount of honey, but also a limited market. He had energy and grit, but that provided him with over \$200.00 for which to be thankful.

Campaign for Honey Votes!

While you are getting honey orders, there are other soliciting activities, especially those pertaining to the national election held on November 8. All the way down from Hoover and Curtis and Roosevelt and Garner to the smallest office seeker there will be all sorts of activity.

Capitalize on the election idea. Send out a flock of postal cards with the sentiment of the season like this:

"Dear Friend: Several thousand candidates are beating the bushes for votes as the time for election is drawing near. Consider well every claim—

including ours, that honey is the most ancient, the most appetizing, the most healthful sweet known in nature.

"Our apiaries are as close to you as your telephone. Order honey for immediate delivery or drive out and see where the bees are busy all summer. You know our prices are right and the honey is right.

"Apple Blossom Apiaries.

"P. S.—Just to show that we have nothing against the politicians, we will furnish free honey for the meals served to the election board."

Use the Institute

Autumn means surcease of summer heat and lethargy. The folks are all at home and the impulse to cook finer meals and to do a bit of entertaining now and then is felt in almost all families. No more appropriate season exists than now, when the frost is on the pumpkin and the fodder's in the shock.

"I find the weeks before Thanksgiving to be the best for the distribution of honey recipes," writes an aggressive honey producer in one of Colorado's scenic valleys. "In this particular the honey-boosting organizations such as the American Honey Institute serve us well. So long as collections of printed recipes including honey are obtainable at prices within reach, I feel that the distribution of such in November will not only increase Thanksgiving honey orders but will stimulate orders from local customers throughout the year."

This customer suggests in addition to solicitation that honey in glass containers be displayed prominently and offered for sale in as many groceries as possible just the week before Thanksgiving. Since cooler weather has come, he believes that many honey producers will find the roadside stand to be effective in the retailing of honey, especially honey in attractive glass jars.

Watch the Parties

A beekeeper three or four years ago reported that he sold honey to thirteen homes in the month of November by following up newspaper announcements of pending parties. Thirteen social events at which honey was served in a single month in an Indiana city of about 10,000!

No beekeeper can know too much about honey and its value as a food—but a lot of them talk too much. I never saw a man whose sales were not better because he read his bee journal regularly and an occasional book on the subject of beekeeping. **Know a lot—then condense the knowledge down into one or two pleasing, pungent paragraphs and go**

forth with the urge to sell. Do that—and I guarantee that you will sell more honey, have more money, and feel prouder of your vocation this November than for a long, long time!

Mixed Honey, Fruit Cocktail

Small cubes of pineapple, pear, orange, grapefruit and cherries (fruit must be drained). Arrange cocktail glasses. Mix 1 tablespoon lemon juice with two tablespoons honey. Pour over mixture. Chill 30 minutes before serving.

Shutting Out the Robbers

How many times have robbers carried away a choice crop from supers placed over a bee escape? This is an aggravation not difficult to prevent—if everything goes right.

Find a supply of fine clay soil and make a mud of it with water to a consistency that will allow easy use. Then seek out the likely places in the supers, around the edges, at the corners, odd holes you would see only with close scrutiny, and close them with the clay cement. When it is dry it shrinks but little and keeps the honey safe from robbers. The hand to hold a supply of the cement and the hive tool and fingers to place it are the best and simplest tools.

Be sure that the clay is real fine and well mixed. Place it on generously. It is easily knocked off or removed with the hive tool when the supers are taken away. Be sure to find places which the bees have propolized shut, as robbers easily get through here even though they look safe. This mud cement, well made and applied, will last indefinitely, even through rain and weather.

G. H. Cale.





from the Little Blue Kitchen

Thanksgiving Suggestions

If people only would desist
From talking of depression,
And would instead let thankfulness
Have audible expression,
They'd be surprised how different
And fine they'd soon be feeling,
And how the hurts hard times have wrought
Would quickly start to healing.

No one denies depression's here,
And far too long has tarried.
Or that each mother's child of us
Has awful burdens carried;
But on the other hand, my friends,
Since all are poor together,
We've other things to talk about
Than scandal or the weather!

For human hearts have wiser grown,
Since each counts each a brother,
And, thank the Lord, this common lack
Has made us love each other.
So when Thanksgiving Day rolls 'round,
And we with God are talking,
Why not give thanks that all of us
Now arm in arm are walking?

Lida Keck-Wiggins.

— o —

Drops o' Nectar

Lacking minted gold, man puts the
coin of love into circulation.

— o —

One woman who used to have a
houseful of servants and who was
always in the hands of a doctor for
low blood pressure, anæmia and
other ailments, now does her own
work and never calls a doctor!

— o —

It's perfectly astounding how in-
genious the human mind becomes
under stress. Things one never
thought about in prosperous times
now just sort of "occur" to one in
meeting unusual situations. New
ways to use old clothes; economical
ways to cook cheap cuts of meat;
new ideas even of being polite to
folks we used to treat snootily!
Funny, isn't it, how the human mind
works under difficult circumstances?

— o —

Honey Lady used to throw away
all the apple pulp after straining it
through the jelly bag. Now, the
other day, in need of a little extra
sweet for luncheon, she took out the
apple pulp from the jelly bag, look-
ing for all the world like regular
applesauce (no joke intended, or
play on the word meant), sweetened
it with a few squeezes from a tube
of honey she happened to have near-
by, and the men folks complimented
her on her new way of serving apple-
sauce!

Honey Lady passes on here a bit
of very helpful information to other
cooks who use honey in their kitch-
ens extensively. The information
was first obtained by her from Uncle
Sam in one of his agricultural de-
partment bulletins, but of course, as
Uncle Sam is a "mere male creature"
after all, Honey Lady took good
pains to try out his advice before
giving it to her readers. Here's what
he said and she proved: "Honey con-
tains less acid than molasses, so that
while it may be substituted at any
time and place for molasses, it re-
quires less soda than does molasses
when included with sour milk. After
many trials were made it was found
that the allowance of soda to a cup-
ful of honey very generally ranges
between one-fourth and one-half of
a level teaspoonful. "Unless," says
Uncle Sam's expert, and Honey Lady
aids and abets him after due tryouts
in the Blue Kitchen, "the cook is
thoroughly familiar with her honey,
she would do well to mix and bake
a small sample of dough before she
decides on the amount of soda to put
into the main portion."

— o —

Honey Cookies

For the benefit of Mrs. A. P., of
Kearney, Nebraska, who wrote Blue
Kitchen recently asking for a recipe
for honey cookies, Honey Lady is
giving two suggestions. These have
been weighed and not found wanting
in the Blue Kitchen ovens and Honey
Lady hopes this good friend of the
American Bee Journal will send us
sweet thoughts as she munches her
next batch of honey cookies made
like this:

- ¾ cup honey
- 2/3 cup sugar
- ½ cup milk
- 3 tablespoonfuls lard
- 2 egg yolks
- 4 cups flour
- ½ teaspoonful salt
- 1 teaspoon ground cinnamon
- ½ cup finely chopped almonds
- ½ teaspoonful soda, or 2 tea-
spoonfuls baking powder

Bring the first four ingredients to
the boiling point and allow the mix-
ture to cool. Sift together the flour,
cinnamon and soda or baking pow-
der. Combine all the ingredients.
Roll the mixture out thin on a floured
board. Cut out and bake in a mod-
erate oven, on tins which have been
greased and floured. To prepare the
tins properly, brush them over with
melted butter and sifted flour, turn
them over and shake off as much as
possible of the flour.

— o —

And here's another:

- 1 cupful extracted honey
- 1 pint sour cream
- 1 scant teaspoonful soda
- Flavoring if desired
- Flour to make a soft dough

— o —

The other day Honey Lady had an
unexpected guest for luncheon. She
had intended to have a little "snack"
from leftovers, being all alone this
day, so there wasn't anything spe-
cially inviting in the refrigerator.
However, if there's anything in the
world Honey Lady just naturally de-
tests it is to turn a person away at
meal time because there isn't any-
thing good enough to offer her. So
she just made a clean breast of it
and asked her friend to stay if she
were willing to "take pot luck." The
friend laughed and said she was will-
ing to take a chance once on any-
thing, so here's what Honey Lady
finally managed. As the honey pot
was commandeered several times,
Blue Kitchen readers may consist-
ently share the close-up or low-down
on that luncheon.

First there was cream of tomato
soup out of a can. Honey Lady has
long since discovered that even with
official "directions" on cans of things,
one may add a special flavor if origi-
nally-minded. So, after adding ex-
actly the same amount of milk to the
soup stock, she also added a pinch
of soda, a sprinkle of salt and one
of pepper, and a teaspoonful of ex-
tracted honey. The effect was a
delicious cream soup for the first
course. With this she cut up into
cubes with her kitchen scissors a
slice of toast left from breakfast.
Result: Cream soup with croutons!

Then she found that there was a
slice of meat loaf in the icebox, and
eggs. So she made a "fluffy ome-
lette." Two of the eggs were broken
and the whites and yolks separated.
The whites were then beaten till
stiff; the yolks beaten and added;
both beaten together until as stiff
as possible. Then to this was added
two tablespoonfuls of milk, salt and
pepper. The skillet had been care-
fully buttered, so that the whole sur-
face was greased. The egg mixture
was poured in and on one-half of it
(as soon as it began to stiffen) were
laid bits of the meat loaf (broken by
Honey Lady into bits as she dropped

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it). After the omelette was cooked on one side, she carefully turned over one-half onto the other, thus covering the meat. In a few moments a lovely, puffy omelette was ready for the serving. As some folks like a sweet touch to their omelette, Honey Lady placed a little container with strained honey in it beside the guest's plate.

And now for a salad. What could she do? Honey Lady looked into the icebox again. Here she found the green-vegetable bag full of crisp lettuce and two bananas looking at her as though to say, "Here am I; use me." "If not, why not?" laughed Honey Lady, and yanked them out. She peeled the bananas, slit them lengthwise, and laid on the lettuce leaves. Then she spread one side of each half with honey, to which a dash of cinnamon was added and a sprinkle of red confectioner's sugar which she chanced to have, and laid the other half of the banana back in place. A spoonful of mayonnaise, made of cream, without fat, save butter, was placed daintily on top of each banana.

Wafers were served with the salad; hot biscuits with the omelette, and there was a cup of delicious Mocha.

Honey Lady's friend said afterward that she was going to drop in often if she would be allowed to take "pot luck."

This banana-honey salad can be served with many variations as to garnish, and would make a very delightful item on a Thanksgiving dinner menu. The red sugar, or even paprika, could be sprinkled on top of the mayonnaise and make the salad a very pretty thing to look at, for instance.

— o —

Here's a good one, illustrating how everybody, even the average traveling man, is conserving these days: A gentleman came to Honey Lady's house and engaged a room. He was to have meals elsewhere, but took his first breakfast in the dining-room just off the Blue Kitchen. As he sat down and unfolded his napkin, he said: "Do you mind my adding something from my pocket to the meal?" Honey Lady, much puzzled, said politely, "Of course not," but feminine curiosity compelled her to look intently as he took out of his pocket what she thought at first glance was a tube of tooth paste. "This," he said, "is strained honey, and they served it at the hotel where I stayed last. Didn't use it all, so put it in my pocket." He and Honey Lady had a little laugh about his Scotch ancestry, but the idea wasn't bad at that!

— o —

In a recent address, Charles Reese, Ohio's official apiarist, said: "Human mothers can pity the bees. Often at one time the colony will have as

many as 18,000 young bees, all crying for food. Each of these needs food and individual attention 1200 times within each twenty-four hours, . . ."

Honey Lady presents this to all mother-readers of Blue Kitchen as

ONE thing they may be thankful for at Thanksgiving time. She presents it to all who are NOT mothers as a cause of thanksgiving just as well.

We thank you, Mr. Busy Bee,
Whose store we yearly rob,
That whether times be good or bad,
You're always on the job!



By N. N. Dodge

Snohomish Market Better

Mr. L. W. Maxwell, of Snohomish, Washington, states that marketing conditions in his locality give indications of improvement. Fireweed honey is in steady demand and the reopening of several sawmills has put more money into circulation. Mr. Maxwell has taken advantage of every opportunity to give talks on bees and honey and has found the people in his community much interested. He reports no difficulty in selling his crop in five-gallon cans at 10 cents per pound.

— o —

Death from Sting

Extreme sensitivity is given by physicians as the cause of the death of Andrew Rossi, Renton, Washington, farmer, who died on the afternoon of September 27 within thirty minutes after having been stung by a honeybee. Mr. Rossi was at work in the field when he felt the insect alight on the back of his neck. When he tried to brush it off it stung him and he died before medical aid arrived.

— o —

Buck Happy Over Half Crop

Although he harvested only half of a normal honey crop this season, Mr. Floyd Buck, of Glasgow, Montana, is encouraged over the fact that honey is moving well in his locality. He expects, at the present rate of sale, to be cleaned up early in November, all of his crop having been sold in 2½-pound, 5-pound and 10-pound pails within three hundred miles of his home. He reports the completion of a new and modern bee cellar and all of his colonies in good shape for wintering.

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Two Thousand Cases from Nalley's

Although it is their first season's experience in distributing comb honey, Nalley's Incorporated, of Tacoma, Washington, had sold two thousand cases of sections by October 1, according to Mr. Harry Watson, salesman.

A new honey label, "Swarming Time Brand," packed under the name of S. W. Hill, of Puyallup, Washington, is gaining wide distribution in Seattle and vicinity.

— o —

Fireweed Light in Western Oregon

Although the honeyflow in eastern Oregon continued well up into September, western Oregon beekeepers report the fireweed crop very light—in many localities a failure. Numerous California beekeepers who migrated to western Oregon for the fireweed flow were greatly disappointed.

— o —

Horst Yields to Mayo

H. J. Horst, who captured a majority of the premiums offered for honey and bees at the Washington State Fair at Yakima, was forced into second place at the Western Washington Fair at Puyallup. George Mayo, for the third season in succession, was successful in capturing the sweepstakes trophy. Mr. Frank Ross, superintendent of the bee and honey department at the Western Washington Fair, was greatly pleased with the way beekeepers responded to the call for entries. Many of them who had no chance of getting premiums, because of the poor crop, prepared exhibits in an effort to swell the size of the display. Considerable interest was shown in the exhibits by the public, especially in the creamed honey featured by the Turman Apiaries of Ohop, Washington, and the beeswax models of spoons, knives, forks and dishes made by Mrs. H. J. Horst, of southwestern Washington. The display of Fred Denecke, of Zenith, Washington, included honey jelly.

— o —

Fireweed Studies

Because fireweed is such an unreliable nectar-yielding plant, sometimes producing very heavily and during other seasons failing to yield at all, Mr. S. D. Williams, of Portland, Oregon, has been carrying on (Please turn to page 450)

The Junior Beekeeper

RUTH R. SMITH
Editor

Dear Children: The big Editors who decide what goes into this Journal have said we children may have this page for our very own. Here we may ask questions and talk to each other about bees. We are all interested in bees, and so are other children, and teachers and grown-ups, so we juniors should find out all we can to help people get acquainted with these most wonderful little creatures. I know you will agree with me it is very kind of these big Editors to let us have this page, so let us all work together to make it very interesting. As ever, your friend,

Ruth R. Smith



Do You Know—

Who wrote one of the very oldest and most interesting books about bees? Let me tell you. Almost one hundred years before Jesus was born in Bethlehem there lived in sunny Italy a little boy who played about his father's farm. He was interested in all the stock—the cows, the pigs, the sheep; but most of all he liked the bees which his father kept in queer wicker hives. This boy liked to watch them come and go with their loads of yellow pollen and the sweet nectar, and he often dreamed of a time when he would be a man and could keep bees himself. As he grew up, he became a soldier, then a lawyer, then a poet, and people were charmed by the

beautiful verses he wrote. Years passed and finally his wish came true.

He bought a little farm out in the country, and there, in a tiny house quite covered with grape vines, he lived and studied bees, watching their habits and writing what he learned in the form of verses.

He wrote another book, too, and the next time big brother loses his Latin book and asks, "Where's my Virgil?" just remember Virgil was this man who wrote about bees so charmingly years ago, and in addition to writing of them, he wrote that book called Virgil, or Æneid, which is studied in most of the high schools in this great country of ours.

How the Fairies Helped the Honeybees

Twinkle, the fairy, was enjoying himself immensely. He was balancing on the very longest spray of honeysuckle, bouncing up and down and turning handsprings, when his friend Fuzzy, the honeybee, dropped down beside him.

"Good morning," said Fuzzy politely. "Are you busy this morning?"

"No," returned Twinkle, sitting down so suddenly he quite surprised the honeybee.

"Then we need your help; we're in trouble, we honeybees," Fuzzy said mournfully.

"In trouble? Oh, dear! Tell me about it." And Twinkle sat very

still and looked sympathetically into his friend's worried face. "What's the matter?"

"It's the roses," replied the honeybee slowly.

"The roses? There in the garden?" queried the fairy.

"Yes," nodded Fuzzy.

"But what ails them?"

"Nothing—but—" The honeybee hesitated, then went on. "You know Yellow Stripes, the giantess?"

The fairy nodded.

"She's gone and spun the biggest web you ever saw right there among the roses—and we need the pollen! Oh, dear, whatever shall we do?" And Fuzzy's voice was almost a sob.

"The pollen?" queried Twinkle. "Oh, yes, that's what your nurse bees mix with honey and eat so they can feed the baby bees." Fuzzy nodded and continued: "Yes, and right now there are so many babies all needing food, and we must have pollen—or they will starve. Oh, dear, and the roses are covered with pollen, and there sits that horrid giantess right in the center of her web, ready to catch and eat any of us that go near the roses." And poor Fuzzy shook her head in distress.

"Well, that's got to be stopped!" declared the fairy decidedly. "Our fairy queen says there's always a way to do any good thing that ought



to be done. Let's think—think hard!"

So the wee fairy and the little honeybee sat quite still and thought hard. Finally, Twinkle spoke: "We can't drive her off, for she is too strong, and we can't tear down her web, for it is too big; besides—she might nab us." And they both shuddered at the thought. "We can't call the Wrens or the Robins, for they are busy with their babies; and I don't suppose Rover would help us."

"No," returned Fuzzy, shaking her head, and a bit of laughter came into her eyes. "I don't suppose he would. He does not like us so very well!" Then, serious as was the situation, the two little friends giggled, for too often they had seen some of Fuzzy's relatives chasing big black Rover across the yard.

Suddenly Twinkle sprang to his feet and shouted: "I know what we can do!" And with his fingers on his lips he blew two long, shrill blasts, so gay and magical that even the great giantess in her stout web among the roses paused to listen. Instantly from among the foliage two fairy figures appeared as like Twinkle as could be imagined.

"Come, Blink, Nimble—quick!" the fairy shouted. "There's work for us—we must help the honeybee babies! They have to have pollen from the roses. I've got an idea!"

In less time than it takes to tell, the three fairies and Fuzzy gathered close upon the leaf and whispered and nodded. Then away the sprites flew to return in a moment, their arms loaded with the delicate blooms of the honeysuckle.

"Quick!" cried Twinkle; and without losing a moment, snip, snip, snip, with her stout mandibles, Fuzzy fashioned three of the cunningest little flags, while the fairies danced about her and sang:

"Oh, we are jolly fairy chaps,
With velvet coats and silver caps!
We're glad to help the bees today,
Get the precious dust from the roses gay."

Soon the tiny banners were finished and away they flew, led by Fuzzy, straight down into the rose garden, where the cruel giantess, Yellow Stripe, the spider, sat weaving her great web, ready to catch any little honeybee who dared gather the pollen from the roses.

Straight to the center of the roses they flew, each waving his banner courageously. "Go way, go way," shouted the giantess.

"Go way yourself," called Twinkle. "The roses belong to the honeybees!" Then he perched on a twig of the nearest bush, while Blink stood guard at the right and Nimble at the left, and lustily they sang:

"Oh, we are fairy traffic cops,
With flags we'll signal 'goes and stops,'
We'll show the honeybees the way
To the golden dust 'mid the roses gay!"

Thus guarded and guided by the wee traffic signals to the very safest

way, Fuzzy flew boldly to the center of the largest rose and, gathering the bits of precious golden dust, sprang into the air again and again as she placed them in her baskets upon her hind legs. And seeing Fuzzy so energetically working for the dear babies at home, other honeybees came, too, and, following the gay traffic signals, they too filled their baskets safely again and again.

The cruel giantess waited and waited, in hopes that some unobserv-

ing bee would blunder into her web, but so well did the bees obey the signals that at length she grew impatient and moved to another part of the garden. Thus the lovely roses with their store of pollen were left safe for the honeybees. And I think it would have been great fun if you and I could have been fairies too and helped Twinkle, Nimble and Blink play traffic cops for the honeybees. Don't you?

THE EDITOR'S ANSWERS

When stamp is enclosed, the editor will answer questions by mail. Since we have far more questions than we can print in the space available, several months sometimes elapse before answers appear.

WINTERING — POSITION — ABSORBENTS

I have twelve colonies, all with entrances facing the east because a lilac hedge runs north to south, and I thought placing the hives very close to that hedge with a roof above them will afford them the shade I read they should have on hot summer days. They receive the morning sun and are in the shade from about 1 p. m.

1. May hive entrances face whatever direction with equal success? Are mine all right?

2. If I wish to prevent swarming, am regular in cutting out all built queen-cells, may I, without injury to brood rearing, etc., entrap all the drones, do away with all of them? I read that the queen needs the drone only once in all her life. Therefore I conclude that the drones are a useless thing if I do not want them to swarm.

3. Reading up about wintering bees, I learned that above the colony, under the cover, should be placed absorbents. We have at hand a good deal of asbestos pads. If I apply two or three, will they absorb the accumulated moisture? We also have a good deal of wood shavings and sawdust. If I put them into cloth and fill up the super, will they absorb the moisture?

ILLINOIS.

Answer—1. No; entrances of beehives may not face all sides with equal success. We have always found a north exposure undesirable, although bees may face that way without very great loss, according to the locality. Yours are certainly facing all right.

2. Yes, you may trap the drones and destroy them. But it is still better not to allow the bees to rear any, or very few, by destroying the drone comb and replacing it with worker comb. In this way drones will be reared in a very few spots and the few that are reared will not be objectionable. Drones are needed only in fertilizing queens, once in the queen's life.

3. Yes, either asbestos pads or sacks filled with sawdust or shavings will be a very good absorbent and will protect the hive against moisture gathering in winter.

THE BIG HIVE

My father kept bees up to date for several years in the standard hives, but he dropped beekeeping when the house burned in 1918. With a few hives that he has left I have been trying beekeeping two years.

1. Seeing about the glass-bottom hives in the April, 1932, number, I placed my next-to-best colony on one in May, and early in June I ordered a Modified Dadant hive from Webster Groves and with a new swarm on foundation I placed it on a glass bottom. I want a hive that will not need much attention, as I want to let my brother-in-law keep some bees on the shares. Of course, I will want to know the result of the trial of the glass bottoms, which I hope to read of in the magazine at the close of

the season, so as to know if this kind of bottom is a success elsewhere besides in California.

2. In a bee supply catalog of Higginsville, Missouri, they do not recommend the Jumbo hive except where the honeyflow is in the fall. Now I wonder if this is true of the Modified hive?

3. If you think the standard hive is best for here, I want to know. I can give you the names of the honey plants in this vicinity if you wish.

MISSOURI.

Answer—1. The glass bottom is an experiment, but of little practical value, and we are not looking for any very wonderful results from it. As to the Dadant hive, its main favorable features are the enlarged room for the breeding of the queen and its deeper space for honey above the cluster in winter, making it more certain of good wintering and of increased breeding in the spring.

2. The Jumbo hive is a Modified Dadant hive, with the only difference that its combs are not spaced as widely as those of the Dadant hive. But we do not agree with the Higginsville people in their opinion, and we have a much longer experience of it than they have. We have no patent on the hive and do not care, except for the facts.

3. Yes, we think the Dadant hive is best in your locality as well as here.

HONEY VINEGAR — CYANOGAS

1. How is honey vinegar made?
2. Will "Cyanogas," used to destroy waxmoth and larva in honey or combs, harm the honey for human use?

MICHIGAN.

Answer—1. Enclosed you will find a sheet of instructions about making honey vinegar. Nothing difficult about it; all it requires is from one to two pounds of honey to the gallon of water and means to start fermentation, with fruit juice of some kind.

2. I have never used Cyanogen, and, although I am of the opinion that it would be harmless, I much prefer to advise the burning of sulphur (brimstone) to destroy the worms of the moth as well as the moths themselves. If properly used in a closed room or box, it will act thoroughly and will even kill the flies. There is no danger left if we only give air to evaporate the gases.

TRAPPING OUT BEES

1. I am trapping bees out of a house into a hive with combs, bees and a queen in. How long will I have to leave the bee escape on the house before I can take it off and let the bees rob the honey out of the house?

2. How long will it take a queen to fill a ten-frame hive with sealed brood in the month of May if the queen has plenty of bees and drawn comb and ten or fifteen pounds of honey in the super? Would she lay better if the honey were put in the brood chamber with her. INDIANA.

Answer—1. Since the bees in the walls of the house in question must have a queen, there will be some young bees hatching for some time, or until the number of bees left in the combs is too small for them to keep that brood fed and warmed. So it may take some weeks yet.

2. A queen of good quality can lay as many as 3,000 eggs per day. So, if the queen in question has a sufficient number of worker bees to take care of the brood and enough pollen and honey for them to prepare the food which the young larvae will need, the queen can fill the combs in some twenty days. Of course, not all the cells will be filled, but most of them, if kept warm enough by the bees. The honey in the super would be quite sufficient for the bees to prepare the food in question.

OAK SAP—FALL REQUEENING

1. Close to my house is a big oak tree, at the foot of which are a few places in the bark that look damp, and you can notice a white paste in the crevices. Bees, wasps, flies and ants swarm around the whole day, helping themselves to this stuff. Can you tell me what it is and why the bees want it?

2. I believe that many beekeepers will be interested in an article in the Journal describing the different ways to requeen in the fall. I had quite a time myself in trying to requeen, as on account of the extremely dry weather in this part of the country there is no fall flow and you cannot open a hive without robbing starting at once. Trying to find the queen on the combs is out of the question. I tried shaking the bees off in front of hive and have a queen guard there. This worked in a few cases all right, but some other hives were so bad in doing so that I disliked the work very much, as I got stung all over. Do you know of any better way?

3. On account of that drought, I have hundreds of unfinished sections. Do you think I could get them finished by putting them on some strong colonies having the regular cover on top, but leave the bee escape hole open, and then put on top of that cover a super with partly filled sections? Will the bees empty that top super and bring the honey down into the sections and finish them? VIRGINIA.

Answer—1. It is quite probable that the rainwater gets mixed with a little sap from the tree and that the insects find it more or less sweet. That is the only explanation I can give you.

2. Requeening in the fall, after the honey crop is over, is likely to cause trouble for the very reason you give—the desire of the idle bees to rob when hives are opened, especially when you try to remove a queen. If you do this while the crop is still on and when the field workers are at work, you will find it much more convenient. We never have any trouble in finding the queen by the method you mention. If there is no robbing, the new queen may be inserted by caging for two days. If she is a queen from your own apiary, it takes even less than two days for her to be accepted by a healthy colony that has plenty of brood. However, if you must insert a queen after the crop has stopped, put the hive in the cellar after removing the old queen and after the bees have come home; then give them the new queen, caged. There are dozens of ways of introducing queens, but caging is the safest.

3. Your suggestions to have bees finish the sections, when the crop is over, will not prove very satisfactory. Better use them as they are.

COMB HONEY FOR WINTER STORES

Having had bees only a short time, I am

writing you asking advice in regard to leaving a super of comb honey on each hive when packing for winter. Some beekeepers around here tell me it would do no good whatever and only require more packing for winter; that the bees would not go up in a comb honey super after honey, etc., but it does not seem to me that bees would store honey in comb supers if they did not desire it for winter or future use. The honey in these supers is strong and of no use for sale; it is light in color, but has a taste like sugar you find in an old molasses barrel, and I cannot imagine what they made it of. As I have had bees only a short time, it has been impossible for me to prepare food chambers. Each brood chamber contains at present between twenty and thirty-five pounds of honey. What do you think of leaving these supers on? NEW YORK.

Answer—If your colonies have over twenty pounds of honey in the brood chamber, they will winter better with the supers off and some warm packing stored above the brood chamber. When spring comes, you can give them as much as you think they need of the honey in the supers. This will be for breeding, as they consume a great deal of food rearing brood. Keeping the supers off and putting some absorbents in the hive top will give them better chances for wintering safely.

Disturbance Not Our Cause of Queen Loss

(Continued from page 442)

sent one to Dr. Oertel that anything was discovered.

I am convinced that both Noema and this peculiar and insidious queen trouble is prevalent over a wide area, but not sufficiently to be serious or noticeable except in this immediate locality.

For a number of years I have bought about a hundred queens from the South or from Mr. Rauchfuss at Denver. This season, just to experiment, I bought no queens, but my losses and experience were identical with other years. Mailed or southern queens were evidently not to blame.

I believe it is time to get down to brass tacks on this problem rather than take too much for granted. I do not believe any beekeeper highly successful ten or more years ago will manage his bees today so as to produce abnormal disappearance of queens.

"World's Largest Store" Sells Honey

(Continued from page 443)

At the annual convention of the Washington State Association in Seattle in November, Mr. Smith addressed the beekeepers on the retail selling of honey and passed on the information which his experience had given him.

As I write this, the honey table in the Sears-Roebuck Company store in Seattle is piled high with honey. The bees still attract attention, and, aside from two or three weeks during the Christmas and New Year's rush period, the display has been there for nearly a year. Every Friday the case is returned to the beekeeper,

who takes out the comb and bees washes the case and puts in a fresh comb of bees.

During a little over eleven months not a single bee has escaped and Mr. Smith's records show that from the little table by the elevator 3500 packages of honey, totaling 10,770 pounds, have been sold. Not only has honey become a standard item in the store, but Mr. Smith is recommending that all of the retail stores of the company handle honey.

The Colloidal Constituents of Honey and Their Effect

(Continued from page 444)

ing, scum formation, retention of air bubbles, turbidity, and caramelization.

The effect of colloids in increasing the tendency of honey to foam and to form scum layers is only one of several ways in which they influence the properties of honey. The effect of colloids on certain other physical and chemical properties of honey will be discussed in subsequent articles.

Doings in the Northwest

(Continued from page 447)

For several years careful studies of weather conditions in an effort to correlate fireweed secretion with precipitation and humidity. Work along this line has also been carried on by Mr. Fred Mandery, of Tenino, Washington, who collected considerable evidence to support his theory that nectar yield was influenced to a large extent by temperatures of the previous winter months.

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Honey Figures in Story

"Fireweed Honey" is the title of a short story by Edith Markham Wallace which appeared in the September 11 issue of "The Young People," Lutheran Sunday school magazine published in Rock Island, Illinois. A roadside stand that nets high returns, and a bear that raises havoc with the hives and their contents are major features in the plot.

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Kreme Whipt Honey Lower

Lowering the price to place it on a par with liquid honey in an effort to move old stocks of Kreme Whipt Honey has been highly satisfactory in increasing the demand for this product of the Mountain States Honey Producers' Association, according to Mr. Charles Brittain, of the Pacific Slope Honey Company of Seattle, distributors of Kreme Whipt. An energetic campaign has placed the product in many retail stores and it is becoming popular in lunch rooms. Several of the fraternities and sororities of the University of Washington serve Kreme Whipt regularly in their dining rooms.

Meetings and Events

St. Louis Prepares for National Meeting

According to reports from St. Louis, plans for the entertainment of visitors to the National Convention early in 1933 are rapidly being formulated. Mr. Charles Denny, of 2408 Brown Road, St. Louis, entomologist of the State Board of Agriculture, is chairman of the local committee. He is being assisted by representatives of the nearby local associations, the state beekeepers' association, the University of Missouri, county agents, Federal Department of Agriculture, and Mr. Hickel, of the firm of O. W. Hickel & Co. All the groups have pledged their cooperation and are now working for the success of the annual gathering of the beekeepers of the country.

A committee with practically the same personnel has already started to work on the publicity program for National Honey Week. Station KMOX of St. Louis is giving five-minute periods on the Farm Service Hour and the "Honey Man" is doing the broadcasting. An offer of twenty-four one-pound jars of honey has been made by Mr. Hickel to the twenty-four ladies sending in the best honey recipes for broadcasting purposes. In addition to radio stations, the cooperation of grocery stores, department stores, bakeries and hotels has been obtained for this program of honey publicity.

A national committee to consider the subject of "Simplification of Honey Containers" is now being made up. It is hoped that this committee will be able to give a preliminary report at the time of the National Convention. The personnel of this committee will be announced in the near future and it is hoped that all those interested will send their ideas to some member of the committee.

The 80-page annual report of the League, containing the papers presented at the last annual meeting, is still available to new members of the League by payment of \$1.00 to the League secretary, Vivarium Building, Champaign, Illinois, which also includes membership for one year.

Southern Conference to Meet at Houston December 5-6

The Southern Beekeepers' Conference will hold its annual meeting on December 5 and 6 at Houston, Texas. Headquarters are at Rice Hotel,

where the exhibit of honey and live bees will also be made.

The Southern Conference counts members in eleven states from Florida to Texas. Delegates are expected to arrive from northern points as well. The Texas Beekeepers' Association has extended invitations to all Texas beekeepers to be present.

Program arrangements are under the management of Dr. F. L. Thomas of College Station, Texas, and those coming to the convention and wishing a place on the program, please confer with Dr. Thomas. A representative from Kellogg's home economics department is expected to be present.

Texas beekeepers assure visitors from other states a hearty welcome to Houston. Nearby is the historic San Jacinto battlefield, now a park,

and many other points of interest. The Southern Conference invites all beekeepers and all those interested in any phase of beekeeping to be with us December 5 and 6.

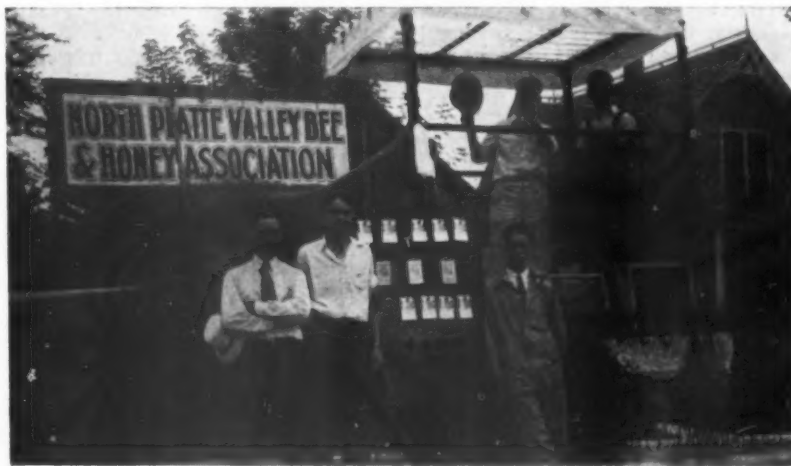
H. E. Coffey, Secretary,
Whitsett, Texas.

Awards at Missouri State Fair

There were quite a number of winners of awards at the Missouri State Fair this year. W. C. Wright of Smithville had 19 entries, won 18 ribbons with cash prizes amounting to \$54.25. Leo Badford of Oregon had 14 entries and won 13 ribbons with cash prizes amounting to \$51.00. Ollie Kerby of Sedalia, 7 entries, 7 ribbons, cash \$33.00. Carl Neef, Boonville, 21 entries, 21 ribbons, cash \$29.50. W. A. Scott of La Monte, 14 entries, 11 ribbons, cash \$14.75. D. F. McNart, LaMonte, 6 entries, 6 ribbons, cash \$9.75. F. S. Butterwick, Sedalia, 4 entries, 4 ribbons, cash \$4.00. F. E. Scotten, Bolivar, 1 entry, 1 ribbon, cash \$4.00. Mrs. S. E. Schilb, Montserrat, 10 entries, 10 ribbons.

Honey cookery awards went to the ladies as follows: Mrs. Roy Hulse, (Turn to col. 3, page 452)

One Way to Attract Interest



These pictures show a float built by the North Platte Valley Bee and Honey Association. The float was mounted on a Ford truck and was inside a large screen cage that was made to fit on the bed of the truck. The cage was decorated with sunflowers tacked on every few inches, and sweet clover hung down to cover the wheels and other parts of the car. A large sign finished the float.

In it we had a strong colony of bees and a good exhibit of extracted and comb honey and two young men who playfully put bees down each other's neck and performed other stunts with them. This float won first prize in the industrial section

with over one hundred entries. There were over 16,000 people who saw the parade, and we won a \$20.00 prize.

The occasion was the "Oregon Trail Days" at Gering, Nebraska, July 14 and 15, which is an annual event. Afterwards we were asked to put on our demonstration again for the entertainment of the crowd. Then several thousand honey circulars of the Kellogg Honey Company were distributed and a lecture given on "The Use of Honey and About Honeybees." This same outfit will be used at the county fair this fall.

R. W. Barnes, President,
N. Platte Valley Bee and Honey Association, Morrill, Nebraska.

Winners in Heart of America Contest

By James Southern



Group at the final meeting of the contest

So successful was the honey production contest sponsored by the Heart of America Beekeepers' Association, near Independence, Missouri, that the Missouri association will conduct similar contests over the state next year, with J. F. Diemer, of Liberty, winner in the professional class, delegated to formulate rules for the state events.

The novel idea was supervised by H. W. Guengerich, Jackson County horticultural agent, with the bees in the orchard of G. L. Kramer, north of Independence, beginning May 15 and ending July 17.

Eight contestants placed a colony each in the orchard, equipped with two standard hive bodies, with any

amount of bees, honey and brood the owner wished. They handled the bees only at the bi-monthly meetings held at the Kramer farm on Sundays.

The colonies were weighed at the beginning, supplies included, and at the end the one with the greatest increase won. Mr. Diemer was first with a gain of 161 1/4 pounds in the sixty-three days, and George LaRock, of Independence, was second with 134 1/2 pounds.

Other increases at the end of the contest were: J. W. Townsend, Kansas City, 113 pounds; Eddie Hurshman, Independence, the youngest in the contest (he was seven years old), 91 pounds; Frank Brawner, Liberty, Missouri, 79 3/4 pounds; Elmer Robinson, Richmond, Mo., 71 pounds; R. J. Hilburn, Jr., Independence, 61 1/2 pounds, and Edgar, Liberty, 30 3/4 pounds.

On the last day Mr. Diemer explained his management. He used a young queen, had ten combs of brood, four ten-frame hive bodies, one with drawn combs and three with full sheets of foundation. No queen excluder was used and the brood was distributed evenly in each of the supers and in the brood nest. There was no swarming.

Early in the contest Mr. Diemer divided the colony and a young queen was introduced to each division. When the swarming season was past the two were reunited to one, making a strong colony.

There were fifty persons present at this all-day picnic held on July 17, and Mr. Diemer received a bronze medal for first place. George LaRock, entered in the amateur class, received a colony of bees as first prize.



J. F. Diemer, of Liberty, winner in professional class, and the youngest contestant, Eddie Hurshman, of Independence.

(Continued—Missouri Awards)

Oak Grove, 4 entries, 4 ribbons, cash \$9.50; Mrs. George Landes, LaMonte, 11 entries, 10 ribbons, cash \$7.25; Mrs. W. Scott, LaMonte, 7 entries, 3 ribbons, cash \$6.25. Mrs. Alice Kerby, Sedalia, 4 entries, 3 ribbons, cash \$4.00; Mrs. W. T. Hull, LaMonte, 2 entries, 2 ribbons, cash \$4.00; Mrs. F. E. Scotten, Bolivar, 2 entries, 1 ribbon, cash \$4.00; Helen M. Bapple, Sedalia, 2 entries, 2 ribbons, cash \$3.50; Mrs. S. E. Schilb, Montserrat, 6 entries, 4 ribbons, cash \$3.25; Mrs. Flora E. Garton, Sedalia, 5 entries, 4 ribbons, cash \$3.00; Mrs. John H. Rector, Sedalia, 1 entry, 1 ribbon, cash \$1.50; Miss Marguerite Neef, Boonville, 8 entries, 6 ribbons, cash \$1.25; Mrs. Dan B. Thiemann, Higginsville, 5 entries, 3 ribbons, cash \$1.00; Mrs. E. H. Hildebrandt, Sedalia, 3 entries, 3 ribbons, cash \$1.00; Mrs. Leo Badford, Oregon, 1 entry, 1 ribbon, cash \$1.00.

In addition to the above cash prizes, there was \$185.00 merchandise prizes. The honey exhibit was the prettiest, most attractive, and one of the largest in the history of the Missouri State Fair and was highly complimented by State Fair Directors.

There was a strong demand for honey during the entire week and on Saturday, the last day, when sales were permitted, honey sold like hot cakes, the fastest I have ever seen at the State Fair. Clay T. Davis, Supt. Dairy Dept.

Oregon Association to Meet at Portland November 10-11

The Oregon State Association meeting this year will be held at Portland November 10 and 11, at the Multnomah Hotel. One of the outstanding features will be a preliminary report on the "Cost of Production Survey" now being undertaken in the state. Both Mr. Burrier and Mr. Todd will be with us.

H. A. Scullen, Secretary,
Oregon State Bkprs'. Ass'n.

Fifty-Third Convention of Ontario Association

The fifty-third annual convention of the Ontario Beekeepers' Association will be held at the King Edward Hotel, Toronto, on November 22, 23 and 24.

The convention this year will be of somewhat greater importance to Ontario beekeepers because of the possibility of the future honey markets between Canada and the United Kingdom. A full program will be mailed to those interested if they will write to this office.

F. Eric Millen, Sec'y-Treas.,
Ont. Bkprs'. Association,
Guelph, Canada.

(Please turn to page 455)

Crop and Market Report

Compiled by M. G. Dadant

For our November crop and market page we asked reporters to answer the following questions:

1. How is the final crop compared to 1931?
2. Are local sales satisfactory?
3. What price jobbing can you get for white-----? Amber-----?
4. What are you getting retail for 5-pound-----, 10-pound-----, comb case-----?

Final Crop

The writer was rather surprised, after the preliminary reports have come and the possibility of the fall crop, to see so few of the states in a position to report a larger crop than last year, which was below normal itself.

However, this is the case. Of the New England states, Maine and Connecticut are above normal. New York apparently is about normal. The whole Southeast and the entire South, however, have had a very light crop, except we find Tennessee and perhaps Arkansas and Kentucky will report 100 per cent of last year. The others range from only 10 per cent of last year up to, say, 75 per cent in the case of Texas. In Alabama they are having to feed the bees to put them in good condition for winter and do not anticipate any surplus from the year.

Other states in the central West which are reporting fairly good crops are Ohio with 125 per cent, Illinois with 125 per cent, and western Iowa with at least 150 per cent of last year. Missouri also reports about 125 per cent.

Southern Michigan will run far ahead of last year, perhaps 150 to 200 per cent. In Wisconsin the failure last year will give them a better crop this year, but in Minnesota the reverse is true and the crop was very disappointing.

North Dakota is below normal, with South Dakota about normal and Nebraska and Kansas about 30 per cent more than last year. The same is true of Oklahoma. Colorado has had two bad failures, including this year, except that the western slope this year has had a very nice crop. Wyoming will perhaps run a little better than last year, with Nevada a bad failure. Utah, Montana and Idaho will at least run the equal of last year, with perhaps the first of these running 30 per cent more. Oregon and Washington are about normal and California will have, say, 30 per cent more honey than a year ago.

In the Canadian provinces Ontario and Quebec crops were disappointing, but in the western provinces the short crop of last year has been followed by a very good one this year, so that the percentage over last year is probably 125 per cent, including the increase.

Local Sales

In practically all instances local sales are extremely slow. The Atlantic seaboard with a short crop, of course, is having fair sales considering the amount of honey they have on hand. Other states reporting fair sales are Georgia, Kentucky, and Mississippi. In the central West, Missouri seems to be going best with good sales and Iowa fair. Michigan also reports fair to good sales.

It is in the plains states that we find that sales are progressing best, and it is because, we believe, they have been pushing hard for local sales. Many beekeepers are writing already that they have disposed of their crop of approximately a carload of honey and could sell more. There seems to be a general practice out there of turning the honey over to "truckers" and letting them go out and sell on their own hook. In this way they get at least a jobbing price for honey and it moves readily.

This is also accomplished to some extent in the Rocky Mountain territory, where local sales are better on account of the very low prices. On the whole, however, the sales have been very slow, although the demand for carload and jobbing quantities of honey seems to have stepped up in the last two weeks.

Jobbing Prices

As a whole, jobbing prices are considerably lower than they were at this time last year, ranging from approximately 6 cents in the eastern sections of the United States for good white honey to a price of about 4 cents in the intermountain and northern territory.

The lowest jobbing price is in the southern section, where Louisiana honey has been quoted as low as 2 cents per pound and apparently glad to get it.

On the whole, we believe that there has been an inclination to stiffening of price in carload lots of honey within the past two or three weeks and honey has begun to move abroad and to the larger markets at the very low prices quoted. There are still some bargains for the man who has cash for a carload of honey, but many states are readily clearing up their surplus at the low prices offered. Even at that, the prices compared to the price of farm products such as corn still look fairly attractive and one could hardly advise beekeepers to go out of the business and go into general grain farming on present basis of prices as they are reflected in corn, hogs, and honey.

Retail Prices

As with the jobbing prices, the retail prices are suggested higher in the eastern states and gradually reducing as we come westward until the bottom basis of prices is reached when we get to the northern mountainous area. This, of course, excludes the southern sections, where considerable of the honey is selling as low as 25 cents for five-pound pails and 50 cents for ten-pound pails. As a matter of fact, we have learned of prices which were even lower than this.

As a general rule, in the East the prices range about from 50 to 70 cents for a five-pound pail and from 80 cents to \$1.20 for a ten-pound pail. As we get into the central West there has been a tendency to reduce somewhat from this, running from 45 cents to 60 cents for the five pounds and from 90 cents to \$1.10 for the ten pounds.

In the plains states area the price is slightly lower than this, ranging from 40 to 55 cents for the fives and from 75 cents to \$1.00 for the tens.

In the section comprising the states of Idaho, Oregon and Washington the price is reduced somewhat and we find a low price of 35 cents for the five-pound and 65 cents for the ten-pound pails. We have even learned of the five-pound pails selling as low as 25 cents in central western territory. As usual, the price cutter is out and he seems to be getting his inning in pushing down the prices. Everybody is looking for bargains these days and no doubt a lot of good white honey is being sold at ridiculously low figures.

Amidst all of this, however, we find in many instances that beekeepers have not reduced the price over a year ago and are still getting very fine satisfactory prices for their honey. Comb honey especially is holding up in a satisfactory fashion at \$3.00 per case, which we see quoted in the reporters' cards coming in.

Summary

All in all, we do not feel discouraged with the prospect of getting rid of this year's honey before the new crop comes. It looks like the demand is picking up every day owing to the very low prices and the fact that there is a short amount of fruit. Also, the increased activity on the part of the smaller beekeeper and the trucker is clearing up many of the lots which otherwise would be a glut on the central markets. Buyers have not been active, so that there are not heavy stocks on hand and the honey is moving out in a fairly orderly fashion, and we see no reason why it should not all, or relatively all, be cleared up by the end of the sales season and before the beginning of the new crop year.

We Are Cash Buyers of Honey and Beeswax
Submit samples, and best prices, freight prepaid
Cincinnati. We also furnish cans and cases.

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Renew Your Subscription

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AMERICAN BEE JOURNAL

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Chicago

Buy and Sell All Grades Extracted Honey

References: 1st National Bank, R. G. Dun or
Bradstreet's Commercial Reports.

The BEEKEEPER'S EXCHANGE

Copy for this department must reach us not later than the fifteenth of each month preceding date of issue. If intended for classified department, it should be so stated when advertisement is sent.

Rates of advertising in this classified department are seven cents per word, including name and address. Minimum ad, ten words.

As a measure of precaution to our readers, we require references of all new advertisers. To save time, please send the name of your bank and other references with your copy.

Advertisers offering used equipment or bees on combs must guarantee them free from disease, or state exact condition, or furnish certificate of inspection from authorized inspector. Conditions should be stated to insure that buyer is fully informed.

HONEY FOR SALE

HONEY FOR SALE—Any kind, any quantity. The John G. Paton Company, 230 Park Avenue, New York.

FOR SALE—White clover honey in 60-pound cans. None finer. Satisfaction guaranteed. J. F. Moore, Tiffin, Ohio.

HONEY FOR SALE—All grades, any quantity. H. & S. Honey and Wax Company, Inc., 265 Greenwich St., New York City.

HONEY—We sell the best. Comb in carriers of eight cases each; extracted, basswood, buckwheat, sweet clover, white clover and light amber. Tell us what you can use for prices. A. I. Root Company of Chicago, 224-230 West Huron St., Chicago, Ill.

NEW CROP shallow frame comb honey, also section honey; nice white stock, securely packed, available for shipment now. Colorado Honey Prod. Ass'n, Denver, Colo.

FOR SALE—Northern white, extracted and comb honey. M. W. Cousineau, Moorhead, Minn.

WHITE clover extracted honey. Write for prices and samples. Kalona Honey Co., Kalona, Iowa.

HONEY FOR SALE—Keep your customers supplied with honey. We can furnish white and light amber honey at attractive prices. Packed in 60-lb., 10-lb. or 5-lb. tins. Dadant & Sons, Hamilton, Ill.

PALMETTO Mangrove or amber honey in barrels. Peter W. Sowinski, Ft. Pierce, Fla.

NEW crop honey. Choice sweet clover extracted. Thomas Atkinson, R. 5, Omaha, Neb.

WHITE honey, new crop, dozen 5-lb. pails \$6.00. C. J. Morrison, 1235 Lincoln Way West, South Bend, Ind.

FOR SALE—White clover comb, new crop. C. Holm, Genoa, Ill.

600 CASES white clover comb honey. Charles Guhl, Napoleon, Ohio, Route 7.

LIGHT amber and buckwheat extracted at 5c, case lots. A. J. Wilson, Hammond, N. Y.

FINE clover honey, comb and extracted. Case or ton. State your needs. Get my prices. L. G. Gartner, Rowan, Iowa.

HONEY—6c per pound; 120 case, new can. Samples 15c. Sylvester Legat, Spring Valley, Ill.

COMB and extracted honey. Write me your wants and I will make you a price. A. L. Kildow, Putnam, Ill.

MICHIGAN'S finest clover honey, new cans. No disease. Six cents. John McColl, Tecumseh, Mich.

CLOVER chunk honey, twelve 5-lb. pails \$6.00; same extracted, \$4.80. D. H. Morris, Swanton, Ohio.

WHITE CLOVER honey, extracted, comb and chunk. One-pound sample 15c in stamps. F. W. Summerfield, Grand Rapids, Ohio.

FOR SALE—Fancy comb, \$3.00 case; No. 1, \$2.50. Cellophane wrapped, 25c extra. Amber mixed, \$2.00. N. B. Querin & Son, Bellevue, Ohio.

CLOVER comb, No. 1, \$2.50; fancy, \$3.00. Buckwheat, No. 1, \$2.50. Clover extracted in 60's, 7c; buckwheat, 4½c. F. J. Smith, Castalia, Ohio.

HONEY for sale from clovers and fall flowers. New cans and cases. Can to carload. Samples free. W. S. Earls & Son, New Canton, Ill.

CLOVER and basswood honey, blended by the bees. Wonderful taste and flavor. Very light amber color, heavy of body and well ripened. Six cents a pound by the case. Satisfaction guaranteed. Max Noack, 3942 Lexington St., Chicago, Ill.

COMB and extracted in most any form wanted. State your wants. H. G. Quirin, Bellevue, Ohio.

CHOICE white honey and silver foxes. Ralph Hibbard, Beekeeper and Taxidermist, Watertown, N. Y.

NEW CROP clover-basswood honey. New 60-pound cans. By case, 6¼c. Write for sample. A. A. French & Sons, Theresa, N. Y.

FINE clover honey in 60-pound cans at 6c per pound. Jos. H. Hoehn, Ottoville, Ohio.

YOU are not as strong as you should be if you have not yet licked Old Man Depression. We are having trouble in keeping up filling orders, but of course want more. Let us help you beat depression with our low prices on honey-naple syrup, table syrup and complete line now before you are down and out. Griswold Honey Co., Madison, Ohio, U. S. A.

FINEST Wisconsin, Nebraska and Iowa extracted honey, white and light amber, in new 60-pound cans, two to the case. Price, 6c F. O. B. shipping point. M. C. Berry & Co., Box 697, Montgomery, Ala.

CLOVER-BASSWOOD comb chunk honey, twelve five-pound pails, \$5.75. Extracted, \$5.30; one sixty, \$4.20. F. L. Barber, Louisville, N. Y.

CLOVER HONEY—New cans, \$6.00 case. Sample 15c. Edward Klein, Gurnee, Ill.

AMBER extracted, case or ton. Miller's Bee Farms, Valparaiso, Ind.

FOR SALE—Extracted honey in 60-pound cans. Henry Hettel, Marine, Ill.

HOWDY'S HONEY—Excellent white extracted in sixties, from central and northern Michigan. Offers wanted for amber. Howard Potter, Ithaca, Mich., or 69 Perkins Hall, Cambridge, Mass.

CLOVER comb, fancy, \$2.75; No. 1, \$2.25 per case. Extracted, in new 60-pound cans, clover, 6 cents; clover-buckwheat, 5 cents per pound. Walter A. Wood, Naples, N. Y.

NORTHERN MICHIGAN raspberry honey, \$7.00 per case; clover, \$6.00; golden rod, \$4.00. New cans. C. J. Freeman, Mesick, Mich.

WHITE and light amber extracted honey, any amount. Also light amber sections. Hyde Bros., New Canton, Ill.

HONEY AND BEESWAX WANTED

WANTED—A car or less quantity of white honey in 60-lb. cans. Mail sample and quote lowest cash price for same. J. S. Bulkley, 816 Hazel St., Birmingham, Mich.

WANTED—Car lots honey; also beeswax, any quantity. Mail samples, state quantity and price. Hamilton, Wallace & Bryant, Los Angeles.

WANTED—CARLOADS OR LESS ALL GRADES EXTRACTED HONEY AND COMB HONEY. Mail samples and delivered price. C. W. Aeppler Company, Oconomowoc, Wisconsin.

CAPPINGS and old combs for rendering: 5c per pound for rendered wax. Either wax or cash for pay. D. H. Morris, Swanton, Ohio.

FOR SALE

BEEES, honey, beekeepers' supplies. Money-saving prices. Crenshaw County Apiaries, Rutledge, Ala.

VERY profitable bee business for sale in Canada. Sacrifice price. Address Box S. American Bee Journal.

SIXTY-HIVE bee yard and home. John Lengkeek, Poole, Neb.

500 COLONY apiary and queen business, equipment, extracting machinery; five-room house, two-car garage and shop. Good location; paying business; good reason for selling. R. W. Barnes, P. O. Box 5, Morrill, Neb.

SUPPLIES

FOR SALE—Reif Rapped cut comb cartons will move your honey at a profit. E. H. Reif, Kalona, Iowa.

PORTER BEE ESCAPES save honey, money, avoid stings; faster most efficient. Sample 15c. R. & E. C. Porter, Lewistown, Ill.

BEST QUALITY bee supplies, attractive prices, prompt shipment. Illustrated catalog on request. We take beeswax in trade for bee supplies. The Colorado Honey Producers' Association, Denver, Colo.

FOR SALE — We are constantly accumulating bee supplies, slightly shopworn; odd sized, surpluses, etc., which we desire to dispose of and on which we can quote you bargain prices. Write for complete list of our bargain material. We can save you money on items you may desire from it. Dadant & Sons, Hamilton, Illinois.

MISCELLANEOUS

CHINESE Vitex trees best for bees and lawns. Correctly tested variety from several years' experiments, now at new low prices. Two-foot trees, 20c each; three-foot trees, 30c each; four-foot trees, 40c each. Vitex seed, 50c per ounce. On all orders totaling \$5.00 or over will give recipe free for growing seed. All prepaid. No deposit required. Order now for fall or spring planting. Adam Scott, Joplin, Mo.

BEEKEEPERS—Improve sources of nectar by planting vitex trees or seed. Two-year-old trees, 40c; one-year-old trees, 25c. New tested seed at \$1.00 per ounce. All prepaid. Joe Stallsmith, Galena, Kans.

EARN upwards of \$20.00 weekly growing mushrooms, all fall and winter, in cellars or outbuildings. Ready market. Begin now. Illustrated booklet free. Established 25 years. Adanac Mushroom Co., Dept. 103, Toronto 10, Canada.

PLANS FOR POULTRY HOUSES — All styles; 150 illustrations. Tells you the type to build for your particular locality. Secret of getting winter eggs, and copy of "Inland." Send 25c. Inland Poultry Journal, 523 Holliday Bldg., Indianapolis, Ind.

THE BEE WORLD—The leading bee journal in Great Britain and the only international bee review in existence. Specializes in the world's news in both science and practice of apiculture. Specimen copy, post free, 12 cents stamps. Membership of the Club, including subscription to the paper, 10/6. The Apis Club, Brockhill, London Road, Camberley, Surrey, England.

Meetings and Events

(Continued from page 452)

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California at Riverside, Nov. 15-17

The California State Beekeepers' Association announce their forty-third annual convention, which is to be held at Mission Inn, in Riverside, California, on November 15, 16, 17.

Mr. Cary W. Hartman, present secretary-treasurer, announces that there is going to be a rousing program and urges a big attendance.

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Topics at Idaho Meeting

Improving the quality of honey production in Idaho was a topic of discussion at the annual summer picnic held at Filer, Idaho, recently. Frank Beach, of Burley, urged the members to keep records and to watch their queens to see how they are affecting the quality and volume of honey.

Discussion of the honey situation revealed that production this year will probably not exceed that of last year, but with a better quality. The prices are expected to be about equal to those of last year, when 4½ cents per pound in car lots was the basic price.

Glen Perrins, Utah.

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Rock Island County Association Meeting

Rock Island (Illinois) County Beekeepers' Association annual meeting was held at S. F. Peterson's apiary, Tuesday, September 27. The ladies furnished a fine chicken dinner. There were fifty-five in attendance.

The following officers were elected: Dr. R. C. Meyer, Hillsdale, Ill., president; John Glasnow, Moline, Ill., vice-president; S. F. Peterson, East Moline, Ill., secretary; Thomas J. Hayes, Taylor Ridge, Ill., treasurer; Robert R. Atkinson, Port Byron, Ill., director; Lawrence Weiss, Taylor Ridge, Ill., director; J. W. McKenrick, Silvis, Ill., director.

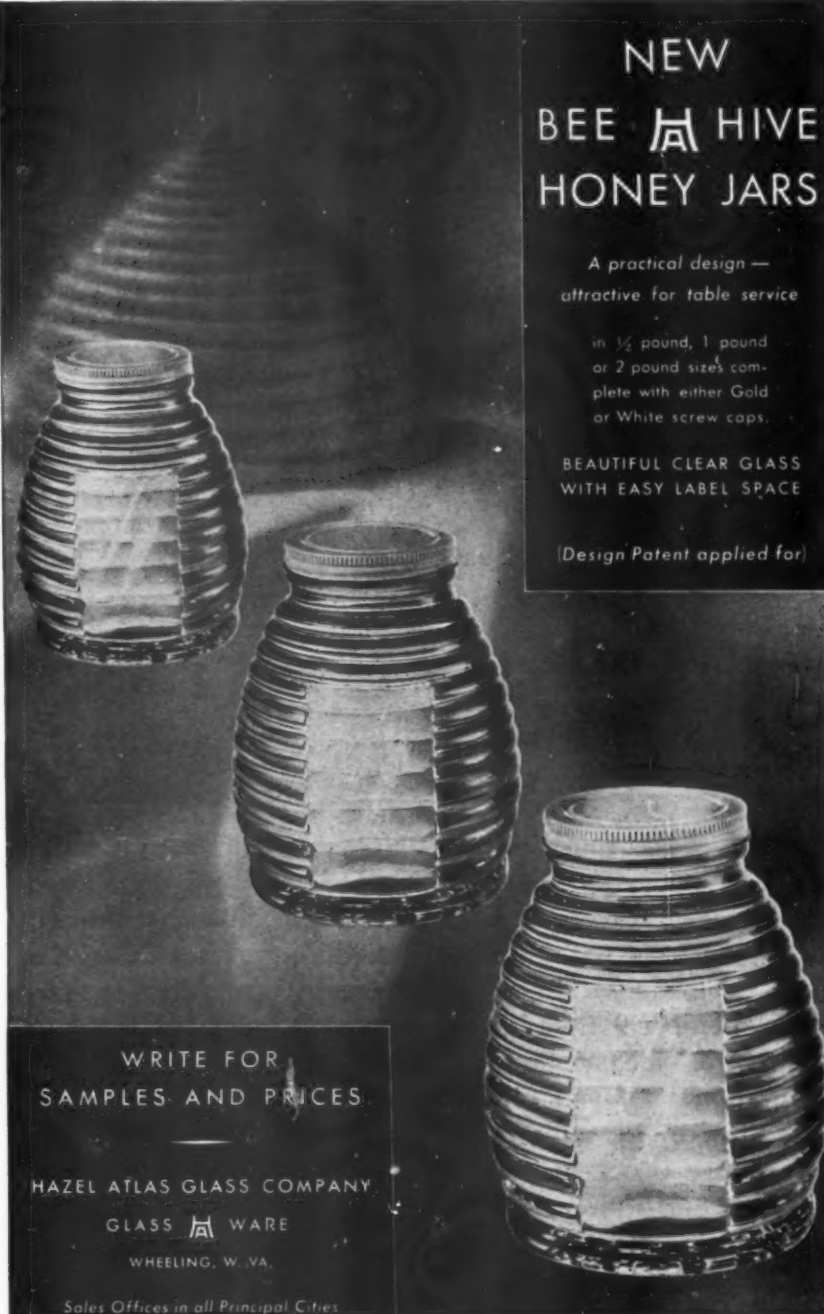
S. F. Peterson.

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Report of DuPage Association Meeting

The last outdoor meeting for the year 1932 of the Cook-DuPage Beekeepers' Association was held Saturday, October 1, at the apiary of C. F. Rife, Naperville, with an attendance of approximately one hundred. Cooperation among the beekeepers in the sale of honey was urged relative to the grading of honey, uniformity in containers, and maintaining a recommended resale price.

The honey table, conducted by the women of the association throughout the summer meetings, resulted in a "Tested Recipes" leaflet which is to be given to the trade. In addition



NEW

BEE  HIVE

HONEY JARS

A practical design —
attractive for table service


in ½ pound, 1 pound
or 2 pound sizes complete
with either Gold
or White screw caps.

BEAUTIFUL CLEAR GLASS
WITH EASY LABEL SPACE

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REDUCED PRICES ON FOUNDATION

Working your wax into non-sag brood and super foundation at greatly reduced prices. Our non-sag foundation has given universal satisfaction wherever used. Send in your wax to be worked into foundation NOW and save money. Samples and prices on request.

We carry a full line of beekeepers' supplies

Gus Dittmer Co.

Augusta, Wisconsin

1932 National Honey Week — November 7 - 12

The American Honey Institute needs your support for this and like events throughout the year. Have you made your donation this year?

Queens

**FINE YOUNG
ITALIANS**

**Fresh from Yards
Immediate
Shipment**

**Citronelle Bee Co.
Citronelle, Ala.**

**1-100 - 25c ea.
Over " - 20c ea.**



National Honey Week November 7-12, 1932



FOR the third National Honey Week, Betty Crocker will feature honey in her General Mills, Inc. broadcast November 9, 1932. Her last broadcast brought 1009 inquiries within five weeks for her recipes featuring honey. May we suggest telephoning your friends to listen in November 9 thus helping to spread the honey message. In this broadcast she will feature Bisquick combinations with honey. If you have not tried Bisquick you are missing something really worth while.

Betty Crocker opened the first honey week broadcast in 1930, has been a consistent friend of honey combinations. General Mills distributed this year 35,000 Bisquick box tops for counter display featuring honey in red ink. The Institute has arranged the honey supply for the testing of recipes.

The Institute will furnish free honey recipes tested in the Gold Medal kitchen. You can get others by writing Betty Crocker in care of the station to which you listen November 9. Funds are needed, cash or honey, to continue the Institute work. There is a honey receiver near you. Arrange with the Institute, address below, how you and your association will help.

Be sure to tune in on radio broadcast and hear Betty Crocker's talk on the use of honey. Time of this and other broadcasts during National Honey Week appear elsewhere in this magazine. Don't miss 'em!

AMERICAN HONEY INSTITUTE

417 N. Few Street

Madison, Wisconsin.

to the association's name being on the leaflet, the member's name and address is also shown. The cost to each member for these leaflets is \$1.35 for 375 copies, and they can only be purchased by association members.

[That's the stuff, Cook-DuPage. If other associations would follow suit, there would be little trouble in maintaining association members. We have read the copy of the tested honey recipe booklet, which is a small circular of six pages, in two colors, and contains recipes that are certainly worth while. Other associations who may be interested may perhaps secure samples of the association folder by writing to E. J. McCormick, Secretary-Treasurer, 6810 South Winchester Avenue, Chicago, Illinois.—Editor.]

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Radio — Honey Talk

Over KDKA, Pittsburgh, Saturday, November 12, at 12:15 to 12:30 noon, this being a farm program feature at this station.

Mr. A. T. Keil, apiarist for Treesdale Farms, Mars, Pennsylvania, with apiaries in the vicinity of Findlay, Ohio, and Mars, Pennsylvania, will give a fifteen-minute talk on "Honey" to help advertise honey during Honey Week—November 7 to 12. Although during the honey season it was very dry, Mr. Keil reports getting a crop of honey this year above the average.

Mr. Keil has been giving talks over KDKA for years, giving a talk on "Bees" soon after KDKA started giving a farm program then under the auspices of the National Stockman and Farmer.

Bees DO Move Eggs

In the October number, Salge raises the question, "Do bees move eggs?"

I can state positively that they do. I have had the same experience Mr. Salge had. Needless to say I did not believe what I knew to be a fact, so I started to ask the bees about it and found out that they not only will move eggs to queen-cells, but into worker-cells as well.

I have taken eggs out of queen-cells and caged the queen, closed up the hive for twenty-four hours and found eggs in the queen-cells. I did not take laying workers into consideration, but I know that the cells in question gave queens which would be impossible to get from laying worker eggs.

I then tried to find out how they did it by taking eggs out of worker-cells and laying them on the edge of the cells. By watching closely, I could see the bees pick up the eggs and replace them in the empty cells. If an egg is damaged, they pay no attention to it.

Clifford Huckins, Montana.

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Over Stocked

on comb honey paper shipping cases. Name quantity you can use and get our low prices on Cartons, Wrappers, Cases, Tin and Glass Containers, etc.

A. G. WOODMAN CO.
Grand Rapids - - Michigan

Guaranteed Purely Mated CAUCASIANS

You can't go wrong with Brooklyn Caucasians, as we absolutely guarantee them to be purely mated.

Our breeders have been carefully imported from the best Caucasian queen experts in Russia.

Caucasian Apiaries, Brooklyn, Ala.

STATEMENT OF OWNERSHIP

Statement of the ownership, management, circulation, etc., required by the Act of Congress of August 24, 1912, of American Bee Journal, published monthly at Hamilton, Illinois for October 1, 1932.

STATE OF ILLINOIS, } ss.
County of Hancock,

Before me, a notary public in and for the state and county aforesaid, personally appeared M. G. Dadant, who, having been duly sworn according to law, deposes and says that he is the business manager of the American Bee Journal, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management, etc., of the aforesaid publication for the date shown in the above caption, rendered by the Act of August 24, 1912, embodied in Section 443, Postal Laws and Regulations, printed on the reverse side of this form, to-wit:

1. That the names and addresses of the publisher, editor, managing editor and business manager are:

Publishers, American Bee Journal, Hamilton, Ill.

Editor, C. P. Dadant, Hamilton, Ill.

Managing editor, G. H. Cale, Hamilton, Ill.

Business manager, M. G. Dadant, Hamilton, Ill.

2. That owners are:

American Bee Journal, Hamilton, Ill., owned by

C. P. Dadant, Hamilton, Ill.

H. C. Dadant, Hamilton, Ill.

V. M. Dadant, Hamilton, Ill.

C. S. Dadant, Hamilton, Ill.

L. C. Dadant, Hamilton, Ill.

M. G. Dadant, Hamilton, Ill.

Leon Saugier, Hamilton, Ill.

Joseph Saugier, Hamilton, Ill.

That the known bondholders, mortgagees and other security holders owning or holding one per cent or more of the total amount of bonds, mortgages or other securities are: None.

(Signed) M. G. DADANT,
Business Manager American Bee Journal.

Sworn to and subscribed before me this third day of October, 1932.

MINNIE S. KING,
Notary Public.

My commission expires Nov. 19, 1933.

Berry's Reliable Bees and Service

Thirty-nine years of selective breeding. Pure, three-banded Italians only. Low prices. Write us now and get ready for 1933.

M. C. BERRY & CO.
Box 696, Montgomery, Alabama

Package Bee and Queen Announcement for 1933

But, before we make the announcement, we wish to express publicly our thanks for the excellent business in the past.

To those that wish to unite their colonies, or kill them off and take the honey, and then fill the hives next spring with packages, will say that we can furnish you with them.

For all orders placed from this announcement before December 1, 1932, we will make you the very low price of \$1.65 for the two-pound, \$2.00 for the three-pound and \$2.50 for the four-pound package, each package to be full weight and contain a select untested three-banded Italian queenbee. With 5 per cent off when cash accompanies the order.

T. W. Burleson & Son

Waxahachie, Texas



**"GIMME ONE,
me sister's got it"**

A ragged, dirty newsboy blurted, "Gimme one, me sister's got it," and dropped on the marble counter* a single penny that tinkled lonesomely. He was buying one of the first Christmas Seals sold in the United States for anti-tuberculosis work. The need was great. He knew. His sister had it.

Today Christmas Seals help protect you and your family, for although the death rate from tuberculosis has been reduced two-thirds it still kills more people between 15 and 45 than any other disease. Your pennies make possible free clinics, nursing service, preventorium, and educational work that mean cure for some, relief for many, and hope for all.

*In the lobby of the Philadelphia "North American," Dec. 13, 1907

THE NATIONAL, STATE AND LOCAL
TUBERCULOSIS ASSOCIATIONS
OF THE UNITED STATES



BUY CHRISTMAS SEALS

The POSTSCRIPT

GOSSIP ABOUT THE OFFICE IN THE MAKING OF THE MAGAZINE

From Florida comes some fruit of the avocado which is new and strange to most of the office force. One hears it commonly spoken of as the "Alligator Pear," but since it has no resemblance to an alligator and little to a pear, I am at a loss to account for the name. This fruit has green, leathery skin or rind and a juicy, tender flesh, and in the center the heart-shaped seed or nut is about the size of a small apple or a walnut in its husk. In Florida they have a joke for the stranger, telling him how good is the fruit, but warning him to be careful not to swallow the seed. Always the stranger meets some such joke when he goes to a new country. In Missouri he is introduced to green persimmons, which pucker up his mouth, and in California he is told of the delight of eating ripe olives from the trees, which prove as bad or worse than the green persimmons.

Since there is a difference of opinion among bee men as to the merits of the avocado tree as a source of honey, I am hoping that our friend Alfred H. Perring, who sends the fruit, will make some observations as to the yield of nectar from this source.

Florida beekeepers live in a different world than we of the North. Our best fruits, such as apples and cherries, refuse to grow for them, but they can gather the citrus fruits from the trees in mid-winter, when blizzards blow for us and the ground here is covered with ice and snow. Dr. Waldo Horton writes that his bees were loafing from May 15 to September 15, the time when all our crop was gathered, yet he reports a harvest of seventy-five pounds per colony from his best ones after the middle of September. The sources he mentions as common to the state, "tupelo, palmetto, orange and mangrove," are of course all strange outside the land of perpetual summer. He may yet get a winter harvest from crotalaria.

Another letter from Florida, from C. E. Bartholomew, formerly a teacher of beekeeping in Iowa State College of Agriculture, well known to our readers of years gone by, gives an interesting viewpoint of south Florida by a man who has kept bees in the North as well. He writes that one year he took an average of 200 pounds per colony, spring count, and made a heavy increase, but over against this crop he had to place three successive years of failure, when he had to feed the bees to keep them from starving. "Bart" describes Florida as a pleasant place to live the year around, with the Gulf Stream to warm them in winter and the trade winds to cool them when summer heat becomes extreme up North. He says that the cost of living is less than half what it is in the North the year around.

When I read that story about stopping the slow leaks (page 436), I wondered how much time I have wasted. The beekeeper who budgeted his time makes a most interesting story, but the question arises as to what is the best use of one's spare time. It seems to me that depends much upon what one wants of life. Personally, I feel that I get the biggest dividends from the hours spent in the open air with all senses alert to catch the sights and sounds always awaiting the nature lover. That is why beekeeping is one of the most attractive occupations, because it gives so much in addition to the money received from the sale of the crop.

Practical beekeepers have long recognized the fact that bees use more stores in mild winters than in cold ones, but have ascribed the cause to somewhat different reasons than given by Corkins on page 438. It has been assumed that this consumption came from greater flight activity and earlier brood rearing. A well known humorist of a few years ago said, "What is the use of knowing so much when so much that we do know ain't so?"

Samuel Cushman says on page 442 that the chlorine treatment for disease is too uncertain and risky for the average beekeeper. While there are reports of success

with this treatment, so many disappointments have resulted that it seems unwise to recommend it except under special conditions with expert attention. So far we have yet to find any substitute for the old-time "burning" for a quick, easy and sure remedy. We still live in hope that some way will be found to clean up disease and save the beekeeper's property.

To my prod in last month's postscript about the small hive, E. R. Root good naturedly responds as follows: "You may favor one large, single brood nest all in one unit. I prefer two units because I can lift them and because at the last minute I can give a whole unit of honey without feeding."

It is always thus. You can never muster all the arguments to favor any particular method or system. At any rate we are no farther apart in our viewpoints than the Democratic and Republican political speakers that we hear over the radio just now.

In the November Nature Magazine is an article written by my son, Kent, telling the history of Charles Dadant's difficulties with the bee men of his home country, France, when he advocated the modern frame hive instead of the skep. So much interest was manifested in Kent's "Lives of Famous Beekeepers," published in this magazine, that we greatly regret having him become so busy with his own newspaper that he has no time to finish the series. He was gathering notes concerning A. I. Root, Henry Alley, G. M. Doolittle and others who were well known. We still have hopes that the series may yet be completed.

With reference to the editorial in the October issue of this Journal commenting on the fact that Caucasians fly at lower temperatures than Italians, E. G. Carr asks the question: "Has it been proved that they do?"

It has been commonly stated that they do, and folks here at Hamilton have noticed that Caucasians often fly on cool days when the Italians remain indoors. To furnish dependable proof that such is always the case is not so easy. Who will come to my rescue and help me to prove the statement?

The Honeyman from Radio Station KMOX, St. Louis, is putting on a clever bit during the farm hour. I heard it first by accident and since have tried to catch him on the air. Since he comes on during the noon hour, most of our readers should find it a convenient time to listen. With "Honey Week" just ahead, we may expect to hear far more than usual about our product over the air for a few days.

As if we did not have trouble enough with disease already, we learn of a new brood disease in the South. I first heard of it through Florida's efficient inspector, R. E. Foster. Since that time Dr. Burnside, from the Washington Laboratory, has been on the ground, and now he tells us on page 433 that it is in fact a new bee disease. It makes one wonder how many diseases there may be which we have not yet recognized as distinct from the well known American or European foulbrood.

On page 432 L. E. Orr discusses feeding for winter. Incidentally, he mentions the fact that bees will store fruit juice when short of nectar. Fruit juice may be all right for the bees in California and it will do no harm here in summer, but it is disastrous business for the beekeeper in northern states when his bees go into winter quarters with fruit juice stored in the combs. Under our conditions, where bees are often confined for weeks at a time without a chance for a cleansing flight, any kind of poor stores is likely to result in the loss of the bees. The beekeeper in a mild climate where the bees are active all winter has a very different problem than ours.

FRANK C. PELLETT.